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FOR: Any person who uses the Federal Register and Code of Federal Regulations.

WHO: Sponsored by the Office of the Federal Register.

WHAT: Free public briefings (approximately 3 hours) to present:

1. The regulatory process, with a focus on the Federal Register system and the public's role in the development of regulations.
2. The relationship between the Federal Register and Code of Federal Regulations.
3. The important elements of typical Federal Register documents.
4. An introduction to the finding aids of the FR/CFR system.

WHY: To provide the public with access to information necessary to research Federal agency regulations which directly affect them. There will be no discussion of specific agency regulations.

WHEN: Tuesday, February 12, 2013
9 a.m.–12:30 p.m.

WHERE: Office of the Federal Register
Conference Room, Suite 700
800 North Capitol Street, NW.
Washington, DC 20002

RESERVATIONS: (202) 741–6008

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Reader Aids

Consult the Reader Aids section at the end of this page for phone numbers, online resources, finding aids, reminders, and notice of recently enacted public laws.

To subscribe to the Federal Register Table of Contents LISTSERV electronic mailing list, go to http://listserv.access.gpo.gov and select Online mailing list archives, FEDREGTOC-L, Join or leave the list (or change settings); then follow the instructions.

CFR PARTS AFFECTED IN THIS ISSUE

A cumulative list of the parts affected this month can be found in the Reader Aids section at the end of this issue.

Rules and Regulations

Federal Register
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Thursday, January 31, 2013

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2012–0940; Directorate Identifier 2012–NE–26–AD; Amendment 39–17321; AD 2013–01–07]

RIN 2120–AA64

Airworthiness Directives; Turbomeca S.A. Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Turbomeca S.A. Arriel 2D turboshaft engines. This AD was prompted by a low fuel pressure event caused by deterioration and a loss of the low-pressure drive function within the hydro-mechanical metering unit (HMU). This AD requires replacing the HMU at a reduced life. We are issuing this AD to prevent an uncommanded in-flight shutdown of the engine, and possible loss of the helicopter.

DATES: This AD becomes effective March 7, 2013.

ADDRESSES: The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.

FOR FURTHER INFORMATION CONTACT: Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: *frederick.zink@faa.gov;* phone: 781–238–7779; fax: 781–238–7199.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a Notice of Proposed Rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the **Federal Register** on October 9, 2012 (77 FR 61303). That NPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information states:

> During an Arriel 2D endurance test, the illumination of the low fuel pressure warning light was observed. The investigation of the high pressure/low pressure (HP/LP) pump assembly within the hydro-mechanical metering unit (HMU), removed following this occurrence, revealed a deterioration and a loss of the LP pump drive function.
>
> This condition, if not detected and corrected, could lead to an uncommanded engine in-flight shut down.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 61303).

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD (77 FR 61303) as proposed.

Costs of Compliance

Based on the service information, we estimate that this AD will affect about 27 products of U.S. registry. We also estimate that it will take about 0.7 hour per engine to comply with this AD. The average labor rate is $85 per hour. Required parts will cost about $14,400 per engine. Based on these figures, we estimate the cost of this AD on U.S. operators to be $390,407.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. ''Subtitle VII: Aviation Programs,'' describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in ''Subtitle VII, Part A, Subpart III, Section 44701: General requirements.'' Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

1. Is not a ''significant regulatory action'' under Executive Order 12866;

2. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov;* or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800–647–5527) is provided in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new AD:

2013–01–07 Turbomeca S.A.: Amendment 39–17321; Docket No. FAA–2012–0940; Directorate Identifier 2012–NE–26–AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective March 7, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Turbomeca S.A. Arriel 2D turboshaft engines.

(d) Reason

This AD was prompted by a low fuel pressure event caused by a deterioration and loss of the low-pressure drive function within the hydro-mechanical metering unit (HMU). We are issuing this AD to prevent an uncommanded in-flight shutdown of the engine, and possible loss of the helicopter.

(e) Actions and Compliance

Unless already done, replace the HMU with an HMU eligible for installation:

(1) Before the HMU exceeds 800 operating hours since new; or

(2) Within 800 operating hours since last replacement of the low-pressure pump spindle wheel assembly, high-pressure pump complete sleeve, bearings/pinions (matched assembly), and sleeve assembly.

(f) Installation Prohibition

After the effective date of this AD, do not install any HMU onto any engine, or install any engine onto any helicopter, unless in compliance with the requirements of paragraph (e) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(h) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: *frederick.zink@faa.gov;* phone: 781–238–7779; fax: 781–238–7199.

(2) Refer to European Aviation Safety Agency AD No. 2012–0141, dated July 31, 2012, and Turbomeca S.A. Alert Mandatory Service Bulletin No. A292 73 2847, Version A, dated May 29, 2012, for related information.

(3) For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781–238–7125.

(i) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on January 11, 2013.

Colleen M. D'Alessandro,

Assistant Manager, Engine & Propeller Directorate, Aircraft Certification Service.

[FR Doc. 2013–02032 Filed 1–30–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2011–1404; Airspace Docket No. 11–AGL–30]

Amendment of Class E Airspace; Ontonagon, MI

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action amends Class E airspace at Ontonagon, MI. Additional controlled airspace is necessary to accommodate new Area Navigation (RNAV) Standard Instrument Approach Procedures at Ontonagon County—Schuster Field Airport. Also, this action renames the airport. The FAA is taking this action to enhance the safety and management of Instrument Flight Rule (IFR) operations at the airport.

DATES: *Effective date:* 0901 UTC, May 2, 2013. The Director of the Federal Register approves this incorporation by reference action under 1 CFR Part 51, subject to the annual revision of FAA Order 7400.9 and publication of conforming amendments.

FOR FURTHER INFORMATION CONTACT: Scott Enander, Central Service Center, Operations Support Group, Federal Aviation Administration, Southwest Region, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone 817–321–7716.

SUPPLEMENTARY INFORMATION:

History

On August 2, 2012, the FAA published in the **Federal Register** a notice of proposed rulemaking (NPRM) to amend Class E airspace for the Ontonagon, MI, area, creating additional controlled airspace at Ontonagon County—Schuster Field Airport (77 FR 45984) Docket No. FAA–2011–1404. Interested parties were invited to participate in this rulemaking effort by submitting written comments on the proposal to the FAA. No comments were received. Class E airspace designations are published in paragraph 6005 of FAA Order 7400.9W dated August 8, 2012, and effective September 15, 2012, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designations listed in this document will be published subsequently in the Order.

The Rule

This action amends Title 14 Code of Federal Regulations (14 CFR) Part 71 by amending Class E airspace extending upward from 700 feet above the surface to accommodate new standard instrument approach procedures at Ontonagon County—Schuster Field Airport, Ontonagon, MI. This action is necessary for the safety and management of IFR operations at the airport. The airport name is also updated from Ontonagon County Airport to Ontonagon County—Schuster Field Airport to coincide with the FAA's aeronautical database.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this regulation: (1) Is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the U.S. Code. Subtitle 1, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it amends

controlled airspace at Ontonagon County—Schuster Field Airport, Ontonagon, MI.

Environmental Review

The FAA has determined that this action qualifies for categorical exclusion under the National Environmental Policy Act in accordance with FAA Order 1050.1E, ''Environmental Impacts: Policies and Procedures,'' paragraph 311a. This airspace action is not expected to cause any potentially significant environmental impacts, and no extraordinary circumstances exist that warrant preparation of an environmental assessment.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (Air).

Adoption of the Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D, AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

■ 1. The authority citation for 14 CFR part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of the Federal Aviation Administration Order 7400.9W, Airspace Designations and Reporting Points, dated August 8, 2012, and effective September 15, 2012, is amended as follows:

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface.

* * * * *

AGL MI E5 Ontonagon, MI [Amended]

Ontonagon County—Schuster Field Airport, MI
(Lat. 46°50′44″ N., long. 89°22′02″ W.)

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of Ontonagon County—Schuster Field Airport; and that airspace extending upward from 1,200 feet above the surface within an area bounded by a line beginning at lat. 46°38′04″ N, long. 89°52′32″ W; to lat. 46°43′44″ N, long. 89°53′15″ W; to lat. 46°48′35″ N, long. 89°50′26″ W; to lat. 47°02′15″ N, long. 89°14′40″ W; to lat. 47°05′33″ N, long. 89°10′19″ W; to lat. 47°04′11″ N, long. 89°08′23″ W; to lat. 47°03′51″ N, long. 89°03′48″ W; to lat. 47°01′42″ N, long. 88°58′43″ W; to lat. 46°55′42″ N, long. 88°55′25″ W; to lat. 46°51′04″ N, long. 89°00′15″ W; to lat. 46°45′14″ N, long. 89°12′25″ W; to lat. 46°35′09″ N, long. 89°37′28″ W; to lat. 46°34′26″ N, long. 89°44′19″ W; thence to the point of beginning.

Issued in Fort Worth, Texas, on January 4, 2013.

David P. Medina,

Manager, Operations Support Group, ATO Central Service Center.

[FR Doc. 2013–02031 Filed 1–30–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2012–0764; Airspace Docket No. 12–ANE–12]

Amendment of Class E Airspace; Lincoln, ME

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action amends Class E Airspace at Lincoln, ME, as the Lincoln Non-Directional Beacon (NDB) has been decommissioned and new Standard Instrument Approach Procedures have been developed at Lincoln Regional Airport. This action enhances the safety and management of Instrument Flight Rules (IFR) operations at the airport.

DATES: Effective 0901 UTC, May 2, 2013. The Director of the Federal Register approves this incorporation by reference action under title 1, Code of Federal Regulations, part 51, subject to the annual revision of FAA Order 7400.9 and publication of conforming amendments.

FOR FURTHER INFORMATION CONTACT: John Fornito, Operations Support Group, Eastern Service Center, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone (404) 305–6364.

SUPPLEMENTARY INFORMATION:

History

On August 2, 2012, the FAA published in the **Federal Register** a notice of proposed rulemaking to amend Class E airspace at Lincoln, ME (77 FR 45985) Docket No. FAA–2012–0764. Interested parties were invited to participate in this rulemaking effort by submitting written comments on the proposal to the FAA. No comments were received. Class E airspace designations are published in paragraph 6005 of FAA Order 7400.9W dated August 8, 2012, and effective September 15, 2012, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designations listed in this document will be published subsequently in the Order.

The Rule

This amendment to Title 14, Code of Federal Regulations (14 CFR) part 71 amends the Class E airspace extending upward from 700 feet above the surface at Lincoln, ME, to accommodate the new Standard Instrument Approach Procedures developed for Lincoln Regional Airport . The Lincoln NDB has been decommissioned, and the NDB approach cancelled. The existing Class E airspace extending upward from 700 feet above the surface is being modified for the safety and management of IFR operations. The Class E radius is increased due to terrain in the surrounding area.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current, is non-controversial and unlikely to result in adverse or negative comments. It, therefore, (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it amends controlled airspace at Lincoln Regional Airport, Lincoln, ME.

Environmental Review

The FAA has determined that this action qualifies for categorical exclusion under the National Environmental

Policy Act in accordance with FAA Order 1050.1E, ''Environmental Impacts: Policies and Procedures,'' paragraph 311a. This airspace action is not expected to cause any potentially significant environmental impacts, and no extraordinary circumstances exist that warrant preparation of an Environmental Assessment.

Lists of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (Air).

Adoption of the Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9W, Airspace Designations and Reporting Points, dated August 8, 2012, effective September 15, 2012, is amended as follows:

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.

* * * * *

ANE ME E5 Lincoln, ME [Amended]

Lincoln Regional Airport, ME
(Lat. 45°21′44″ N., long. 68°32′05″ W.)

That airspace extending upward from 700 feet above the surface within an 11.8-mile radius of Lincoln Regional Airport.

Issued in College Park, Georgia, on December 12, 2012.

Barry A. Knight,

Manager, Operations Support Group, Eastern Service Center, Air Traffic Organization.

[FR Doc. 2013–02036 Filed 1–30–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[Docket No. USCG–2012–1040]

RIN 1625–AA09

Drawbridge Operation Regulation; Long Island, New York Inland Waterway From East Rockaway Inlet to Shinnecock Canal, NY

AGENCY: Coast Guard, DHS.

ACTION: Final rule.

SUMMARY: The Coast Guard is removing the existing drawbridge operation regulations that govern the Wantagh State Parkway Bridge, mile 16.1, across Goose Creek at Jones Beach, New York, and revising the regulations that govern the Captree State Parkway Bridge, mile 30.7, across the State Boat Channel at Captree Island, New York. The Wantagh State Parkway Bridge was replaced with a fixed bridge and the drawbridge operation regulations are no longer necessary. The method for contacting the bridge tender at the Captree State Parkway Bridge changed several years ago and this action will update the regulations to reflect the present contact protocol.

DATES: This rule is effective January 31, 2013.

ADDRESSES: Documents indicated in this preamble as being available in the docket, are part of docket USCG–2012–1040 and are available by going to *http://www.regulations.gov,* inserting USCG–2012–1040 in the ''keyword'' box, and then clicking ''search.'' This material is also available for inspection or copying at the Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Ms. Judy Leung-Yee, Project Officer, First Coast Guard District Bridge Branch, 212–668–7165, *judy.k.leung-yee@uscg.mil.* If you have questions on viewing the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202–366–9826.

SUPPLEMENTARY INFORMATION:

Table of Acronyms

CFR Code of Federal Regulations
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of Proposed Rulemaking
§ Section
U.S.C. United States Code

A. Regulatory History and Information

The Coast Guard is issuing this final rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because the Wantagh State Parkway Bridge that once required drawbridge operation regulations was replaced with a fixed span bridge; therefore, these regulations are no longer applicable and shall be removed. The protocol in the existing regulations to contact the bridge tender for bridge openings at the Captree State Parkway Bridge via a telephone located on the bridge pier is no longer accurate since the telephone was removed many years ago. This action will update the present protocol to contact the bridge for openings which is to call the number posed at the bridge. It is unnecessary to publish a notice of proposed rulemaking because this regulatory action does not purport to place any restrictions on mariners but rather removes a restriction that has no further use or value.

Under 5 U.S.C. 553(d)(1), a rule that relieves a restriction is not required to provide the 30 day notice period before its effective date. This rule removes the Wantagh State Parkway Bridge draw operation requirements under 33 CFR 117.799(i), thus removing a regulatory restriction on the public.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective in less than 30 days after publication in the **Federal Register**. The bridge has been replaced with a fixed span bridge and this rule merely requires an administrative change to the **Federal Register**, in order to omit a regulatory requirement that is no longer applicable or necessary and revise the contact method at the Captree State Parkway Bridge which has been obsolete for many years and will simply be updated to reflect the present protocol.

B. Basis and Purpose

The drawbridge operation regulations for the Wantagh State Parkway Bridge at mile 16.1, across Goose Creek, at Jones

Beach, New York, and the Captree State Parkway Bridge are listed at 33 CFR 117.799(i).

The Wantagh State Parkway Bridge was replaced with a fixed span structure; therefore, the Coast Guard is removing the Wantagh State Parkway Bridge from the regulations because they are no longer necessary. The drawbridge operation regulations for the Captree State Parkway Bridge will not be removed; however, the contact method will be changed to calling the number posted at the bridge for bridge openings. Formerly there was a telephone located at the bridge pier to call the tender. That phone was removed many years ago.

C. Discussion of Final Rule

This final rule revises the drawbridge operation regulations listed at 33 CFR 117.799(i), that govern the operation of the Wantagh State Parkway Bridge, mile 16.1, across Goose Creek, at Jones Beach, New York, and the Captree State Parkway Bridge, mile 30.7, across the State Boat Channel, at Captree Island. The Wantagh State Parkway Bridge was replaced with a fixed span bridge and as a result, we are revising paragraph (i), by removing the Wantagh State Parkway Bridge from the regulations. The regulations for the Captree State Parkway Bridge will not be removed by this action; however, the contact instructions in the existing regulation to contact the tender will be revised because the phone formerly located at the bridge fender to contact the tender was removed many years ago.

D. Regulatory Analyses

We developed this rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses based a number of these statutes or executive orders.

1. Regulatory Planning and Review

This rule is not a significant regulatory action under section 3(f) of Executive Order 12866, Regulatory Planning and Review, as supplemented by Executive Order 13563, Improving Regulation and Regulatory Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of Order 12866 or under section 1 of Executive Order 13563. The Office of Management and Budget has not reviewed it under those Orders.

The Coast Guard does not consider this rule to be ''significant'' under that order because it is an administrative change and does not affect the way vessels operate on the waterway.

2. Impact on Small Entities

The Regulatory Flexibility Act of 1980 (RFA), 5 U.S.C. 601–612, as amended, requires federal agencies to consider the potential impact of regulations on small entities during rulemaking. The Coast Guard received no comments from the Small Business Administration on this rule. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

This rule will have no effect on small entities since this drawbridge has been removed and replaced with a fixed bridge and the regulation governing drawbridge operations for this bridge is no longer necessary. There is no new restriction or regulation being imposed by this rule; therefore, the Coast Guard certifies under 5 U.S.C. 605(b) that this final rule will not have a significant economic impact on a substantial number of small entities.

3. Collection of Information

This rule calls for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

4. Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on States, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the variations levels of government. We have analyzed this rule under that Order and have determined that it does not have implications for federalism.

5. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

6. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

7. Taking of Private Property

This rule will not cause a taking of private property or otherwise have a taking implication under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property.

8. Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

9. Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that might disproportionately affect children.

10. Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

11. Energy Effects

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a ''significant energy action'' under that order because it is not a ''significant regulatory action'' under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

12. Technical Standards

This rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

13. Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.lD, which guides the Coast Guard in

complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have concluded that this action is one of a category of actions which do not individually or cumulatively have a significant effect on the human environment. This rule is categorically excluded, under figure 2–1, paragraph (32)(e), of the Instruction.

Under figure 2–1, paragraph (32)(e), of the Instruction, an environmental analysis checklist and a categorical exclusion determination are not required for this rule.

List of Subjects in 33 CFR Part 117 Bridges.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 117 as follows:

PART 117—DRAWBRIDGE OPERATION REGULATIONS

■ 1. The authority citation for part 117 continues to read as follows:

Authority: 33 U.S.C. 499; 33 CFR 1.05–1; Department of Homeland Security Delegation No. 0170.1.

■ 2. In § 117.799, revise paragraph (i) to read as follows:

§ 117.799 Long Island, New York Inland Waterway from East Rockaway Inlet to Shinnecock Canal.

* * * * *

(i) The draw of the Captree State Parkway Bridge at mile 30.7, across the State Boat Channel, at Captree Island, shall open on signal if at least a one half hour advance notice is given by calling the number posted at the bridge as follows:

(1) Every other hour on the even hour.

(2) From April 1 through October 31, on Saturday, Sunday, and Federal holidays every three hours beginning at 3 a.m.

* * * * *

Dated: December 17, 2012.

Daniel B. Abel,

Rear Admiral, U.S. Coast Guard, Commander, First Coast Guard District.

[FR Doc. 2013–02083 Filed 1–30–13; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2012–1013]

RIN 1625–AA00

Safety Zone; Woldenburg Park, Mississippi River, New Orleans, LA

AGENCY: Coast Guard, DHS.

ACTION: Final rule.

SUMMARY: The Captain of the Port New Orleans, under the authority of the Ports and Waterways Safety Act, has established a temporary safety zone on the Mississippi River in the vicinity of Woldenburg Park, mile marker 94 to mile marker 96, extending out 300 feet from the East Bank of the Mississippi River during Super Bowl 2013 celebratory events. The Super Bowl is a large scale event that poses many public safety concerns due to the number of people that will attend. This safety zone has been established to protect the public from the hazards created by congested river traffic.

DATES: This rule is effective from 6:00 a.m. on January 29, 2013 through 6:00 a.m. on February 4, 2013. The zone will be enforced between the hours of 8:00 a.m. and 10:00 p.m. on each day of the effective period described above.

ADDRESSES: Documents mentioned in this preamble are part of docket [USCG–2012–1013]. To view documents mentioned in this preamble as being available in the docket, go to *http://www.regulations.gov*, type the docket number in the ''SEARCH'' box and click ''SEARCH.'' Click on Open Docket Folder on the line associated with this rulemaking. You may also visit the Docket Management Facility in Room W12–140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email LCDR Kenneth Blair, Sector New Orleans, U.S. Coast Guard; telephone (504) 365–2392, email *Kenneth.E.Blair@uscg.mil.* If you have questions on viewing or submitting material to the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone (202) 366–9826.

SUPPLEMENTARY INFORMATION:

Table of Acronyms

DHS Department of Homeland Security
FR **Federal Register**
NPRM Notice of Proposed Rulemaking

A. Regulatory History and Information

The Coast Guard published a Notice of Proposed Rulemaking (NPRM) for this Final Rule on December 19, 2012 (77 FR 75079). The comment period for the NPRM expired on December 30, 2012. The Coast Guard received no public comments and no requests to extend the comment period.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. The Super Bowl events for which this safety zone is intended to be effective begin the last week of January 2013. Waiting 30 days after publication in the **Federal Register** is contrary to public interest as that would delay the effective date of this rule until after the Super Bowl events in this area have completed.

B. Basis and Purpose

The 2013 National Football League Super Bowl in New Orleans, Louisiana will occur on February 3, 2013. This is a very high profile event, with tens of thousands of people expected to attend events at Woldenburg Park and other Mississippi River riverfront locations before, during, and after the football game. Due to the unusually large crowds expected along the riverfront, the consequences to the public of an incident involving a vessel in the immediate area will greatly increase. To address this concern, the Captain of the Port New Orleans has established a temporary safety zone on the Mississippi River in the vicinity of Woldenburg Park, mile marker 94 to mile marker 96, extending out 300 feet from the East Bank of the Mississippi River. This safety zone has been established to protect the public from the potential hazards created by congested river traffic. All vessels are prohibited from entering into or transiting through the safety zone without prior approval of the Captain of the Port New Orleans.

The legal basis and authorities for this rule are found in 33 U.S.C. 1231, 46 U.S.C. Chapter 701, 3306, 3703; 50 U.S.C. 191, 195; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Public Law 107–295, 116 Stat. 2064; and Department of Homeland Security Delegation No. 0170.1, which collectively authorize the Coast Guard to propose, establish, and define regulatory safety zones.

C. Discussion of Comments, Changes and the Final Rule

The Coast Guard received no public comments on the proposed temporary safety zone, therefore there are no changes to the regulatory text in this final rule.

D. Regulatory Analyses

We developed this rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes or executive orders.

1. Regulatory Planning and Review

This rule is not a significant regulatory action under section 3(f) of Executive Order 12866, Regulatory Planning and Review, as supplemented by Executive Order 13563, Improving Regulation and Regulatory Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of Executive Order 12866 or under section 1 of Executive Order 13563. The Office of Management and Budget has not reviewed it under those Orders. The impacts on navigation will be minimal due to the duration and location of the safety zone, and the fact that vessels will be able to safely navigate around this area on the Mississippi River. Additionally, vessels may request permission from the Captain of the Port to enter into or transit though the safety zone.

2. Impact on Small Entities

The Regulatory Flexibility Act of 1980 (RFA), 5 U.S.C. 601–612, as amended, requires federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard received no comments from the Small Business Administration on this rule. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

This final rule affects the following entities, some of which might be small entities: the owners or operators of vessels intending to transit on the Mississippi River in the Vicinity of Woldenburg Park, New Orleans, Louisiana, mile marker 94 to mile marker 96, between 6:00 a.m. on January 29, 2013 through 6:00 a.m. on February 4, 2013.

This safety zone will not have a significant economic impact on a substantial number of small entities because most vessel traffic could pass safely around the safety zone. Vessel traffic that cannot pass safely around the safety zone would be allowed to pass through the zone with the permission of the Captain of the Port New Orleans. Before the activation of the safety zone, the Captain of the Port New Orleans would issue maritime advisories widely available to users of the river.

3. Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT**, above.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

4. Collection of Information

This rule will not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

5. Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and determined that this rule does not have implications for federalism.

6. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to contact the person listed in the **FOR FURTHER INTFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

7. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

8. Taking of Private Property

This rule will not cause a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

9. Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

10. Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

11. Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

12. Energy Effects

This action is not a ''significant energy action'' under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use.

13. Technical Standards

This rule does not use technical standards. Therefore, we did not

consider the use of voluntary consensus standards.

14. Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.lD, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA)(42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule creates a temporary safety zone on the Mississippi River in the vicinity of Woldenburg Park, mile marker 94 to mile marker 96, extending out 300 feet from the East Bank of the Mississippi River during Super Bowl 2013 celebratory events. The Super Bowl is a large scale event that poses many public safety concerns due to the number of people that will attend. This safety zone has been established to protect the public from the hazards created by congested river traffic. This rule is categorically excluded from further review under paragraph 34(g) of Figure 2–1 of the Commandant Instruction. An Environmental Analysis Checklist and a Categorical Exclusion Determination are available in the docket where indicated under **ADDRESSES**. We seek any comments or information that may lead to the discovery of a significant environmental impact from this rule.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 33 U.S.C. 1231; 46 U.S.C. Chapter 701, 3306, 3703; 50 U.S.C. 191, 195; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Pub. L, 107–295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1

■ 2. Add § 165.T08–1013 to read as follows:

§ 165.T08–1013 Safety Zone; Woldenburg Park, Mississippi River, New Orleans, LA.

(a) *Location.* The following area is a safety zone: The waters on the Mississippi River in the vicinity of Woldenburg Park, New Orleans, Louisiana, mile marker 94 to mile marker 96, extending out approximately 300 feet from the East Bank of the Mississippi River.

(b) *Effective Dates:* This rule is effective from 6:00 a.m. on January 29, 2013 through 6:00 a.m. on February 4, 2013.

(c) *Enforcement Periods:* This safety zone will be enforced from 8:00 a.m. until 10:00 p.m. on each day of the effective dates described in paragraph (b).

(d) *Regulations.* (1) In accordance with the general regulation in § 165.23 of this part, vessels must not enter into, remain within, or transit through this safety zone, unless authorized by the Captain of the Port New Orleans.

(2) Vessels requiring entry into or passage through the Safety Zone must request permission from the Captain of the Port New Orleans, or a designated representative. The Captain of the Port New Orleans, or a designated representative, may be contacted on VHF–16, or by telephone at (504) 365–2543.

(3) All persons and vessels shall comply with the instructions of the Captain of the Port New Orleans and designated personnel. Designated personnel include commissioned, warrant, and petty officers of the U.S. Coast Guard.

Dated: January 23, 2013.

P.W. Gautier,

Captain, U.S. Coast Guard, Captain of the Port New Orleans.

[FR Doc. 2013–02207 Filed 1–30–13; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Parts 173, 174, 181, and 187

[Docket No. USCG–2003–14963]

RIN 1625–AB45

Changes to Standard Numbering System, Vessel Identification System, and Boating Accident Report Database

AGENCY: Coast Guard, DHS.

ACTION: Rule; information collection approval.

SUMMARY: On March 28, 2012, the Coast Guard amended its regulations related to numbering undocumented vessels and reporting boating accidents. The amendment affects three collections of information and adds to the recordkeeping and reporting requirements of vessel owners and agencies involved in issuing vessel registration and reporting boating accidents. This notice announces that the Office of Management and Budget approved changes to the collections of information with control numbers 1625–0003, 1625–0070, and 1625–0108, which will now be enforced.

DATES: The collection of information requirements under 33 CFR 173.57(c), 174.16(b), 174.17(c), and 174.19(c) will be enforced beginning January 31, 2013.

FOR FURTHER INFORMATION CONTACT: If you have questions about this document, contact Mr. Jeff Ludwig, Office of Auxiliary and Boating Safety; telephone 202–372–1061, or email *Jeffrey.A.Ludwig@uscg.mil*. If you have questions about viewing the docket (USCG–2003–14963), call Ms. Renee V. Wright, Program Manager, Docket Operations, telephone 202–366–9826.

SUPPLEMENTARY INFORMATION: With the exception of the revised collection of information provisions, the Changes to Standard Numbering System, Vessel Identification System, and Boating Accident Report Database rule became effective on April 27, 2012. Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520), an agency may not conduct or sponsor a collection of information until the collection is approved by the Office of Management and Budget (OMB). Accordingly, the preamble to the final rule stated that the Coast Guard would not enforce the collection of information requirements in 33 CFR 173.57(c), 174.16(b), 174.17(c), and 174.19(c) until the collection of information requests were approved by OMB. The preamble also stated that the Coast Guard would publish a notice in the **Federal Register** informing the public of OMB's decision to approve, modify, or disapprove the collections.

The Coast Guard submitted the information collection requests to OMB for approval in accordance with the Paperwork Reduction Act of 1995. OMB approved the collections of information on December 2, 2012, for 1625–0003, on December 16, 2012, for 1625–0108, and on December 27, 2012, for 1625–0070. The approvals for these collections of information expire on December 31, 2015. Copies of the OMB notices of action are available in our online docket (USCG–2003–14963) at *http://www.regulations.gov*.

Dated: January 16, 2013.

Paul F. Thomas,

Captain, U.S. Coast Guard, Director of Inspections & Compliance.

[FR Doc. 2013–02081 Filed 1–30–13; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R05–OAR–2011–0328; FRL–9774–4]

Approval and Promulgation of Air Quality Implementation Plans; Minnesota; Flint Hills Resources Pine Bend

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: EPA is approving Minnesota's August 29, 2011, request to revise its sulfur dioxide (SO_2) State Implementation Plan (SIP) for Flint Hills Resources Pine Bend, LLC (FHR Pine Bend), in Dakota County. The facility is shutting down an incinerator, rerouting process gases, planning for a new boiler, and making other emission limit reductions. This revision will result in a decrease in SO_2 emissions.

DATES: This direct final rule will be effective April 1, 2013, unless EPA receives adverse comments by March 4, 2013. If adverse comments are received, EPA will publish a timely withdrawal of the direct final rule in the **Federal Register** informing the public that the rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R05–OAR–2011–0328, by one of the following methods:

1. *www.regulations.gov:* Follow the on-line instructions for submitting comments.
2. *Email: blakley.pamela@epa.gov.*
3. *Fax:* (312) 692–2450.
4. *Mail:* Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR–18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.
5. *Hand Delivery:* Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR–18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604. Such deliveries are only accepted during the Regional Office normal hours of operation, and special arrangements should be made for deliveries of boxed information. The Regional Office official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

Instructions: Direct your comments to Docket ID No. EPA–R05–OAR–2011–0328. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or email. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through *www.regulations.gov* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. This facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. We recommend that you telephone Mary Portanova, Environmental Engineer, at (312) 353–5954 before visiting the Region 5 office.

FOR FURTHER INFORMATION CONTACT: Mary Portanova, Environmental Engineer, Control Strategies Section, Air Programs Branch (AR–18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 353–5954, *portanova.mary@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document whenever ''we,'' ''us,'' or ''our'' is used, we mean EPA. This supplementary information section is arranged as follows:

I. What is the background for this action?

On August 29, 2011, Minnesota submitted a request to EPA to revise its SO_2 SIP for the FHR Pine Bend oil refinery in Rosemount, Dakota County. FHR Pine Bend is making modifications to its facility to improve energy efficiency and address plant safety. The facility will remove its Merox process incinerator, reroute process gases to an existing furnace, take additional restrictions on steam-air decoking activities for certain boilers, revise the SO_2 emission limits for its fluid catalytic cracking unit, and add a boiler.

FHR Pine Bend is subject to an Administrative Order, which contains SO_2 emission limits and requirements which are intended to ensure the protection of ambient air quality. The provisions of the Administrative Order have been approved by EPA into the SO_2 SIP for FHR Pine Bend (72 FR 39568, July 19, 2007). Minnesota amended the Administrative Order for FHR Pine Bend to provide for the facility's planned modifications, and submitted it to EPA on August 29, 2011, as a SIP revision request. The effective date of the amended Administrative Order was also August 29, 2011. In addition, Minnesota has issued FHR Pine Bend an amended permit (03700011–008, August 16, 2011). This permit contains SO_2 emission limits and related requirements for FHR Pine Bend.

After a routine plant safety review, FHR Pine Bend determined that there was a potential flameout risk with its Merox unit incinerator. The company decided to shut down the incinerator and reroute the gas streams it had burned to be either recycled or burned in an existing process heater (31H–2), depending on the mercaptan content of the gases. The Merox incinerator had previously handled gases from a sulfur recovery unit which is no longer in operation. Treating the smaller gas stream that it currently receives had caused the large Merox incinerator to operate less efficiently. The process heater (31H–2) will be able to destroy the Merox off-gases using less additional fuel, resulting in lower emissions of SO_2, nitrogen oxides, carbon monoxide, and greenhouse gases. The SIP revision request includes revised SO_2 emission limits for the process heater (31H–2), in response to the heater's new input gas streams. The continuous emission

monitor (CEM) currently on the Merox incinerator will be moved to the process heater (31H–2), to measure its SO_2 emissions. The SIP retains the ability for FHR Pine Bend to use the Merox incinerator temporarily, if it is needed while the gas streams are being rerouted, but the emission limit applicable to the Merox incinerator for this potential operation is approximately 700 tons per year (tpy) lower than its current emission limit. The Merox incinerator is to be permanently shut down after the gas stream rerouting is complete.

Other updates which are not related to the Merox incinerator shutdown are also included in the August 29, 2011 SIP revision request. First, FHR Pine Bend intends to apply for a permit to install a new boiler. Therefore, SO_2 emissions corresponding to a new boiler were included in the modeling analysis performed for this SIP revision request, based on the emissions and stack measurements of the plant's existing Boiler 9. To ensure that the company's SIP will continue to protect air quality after the addition of the new boiler, the Administrative Order prohibits the company from operating the new boiler with stack and emission parameters different from those used in the dispersion modeling supporting the August 29, 2011 SIP revision request. Second, the SIP revision request includes an emission limit reduction of approximately 2700 tpy at the fluid catalytic cracking unit. The revised emission limit was chosen after a review of recent continuous emission monitoring data. Third, FHR Pine Bend is taking additional limits on its steam-air decoking activities for four heaters. These limits restrict the heaters from being decoked simultaneously. The decoking process uses steam, air, heat, and water to periodically remove coke buildup from process heater tubing. The decoking residues are directed into water-filled quench pits. The modeled emission rates from the decoking operations have been updated after engineering analyses at the plant. Fourth, the SIP revision request accounts for changes in the stack exit temperature of the oil separation and waste treatment plant's thermal oxidizer stack, which are expected after a convection stack/heat exchanger replacement is completed. The replacement will increase energy efficiency at the thermal oxidizer. Finally, additional revisions to the SIP address the facility's name change from Flint Hills Resources, LP, to Flint Hills Resources Pine Bend, LLC, and adjustments to numbering within the rule. Overall, the August 29, 2011 SIP revision provides for a reduction in SO_2 emissions of over 3100 tpy.

II. Analysis

Section 110(l) of the Clean Air Act states that the Administrator shall not approve a SIP revision if it would interfere with any applicable requirement concerning attainment of the national ambient air quality standards (NAAQS) and reasonable further progress. 42 U.S.C. 7410(l). The August 29, 2011 SIP revision for FHR Pine Bend represents an overall emissions decrease of over 3100 tpy of SO_2 emissions. The revision also provides for reductions in nitrogen oxides, carbon monoxide, and greenhouse gases from the shutdown of the Merox incinerator and the associated decrease in fuel usage.

The new operating scenario and new limits for FHR Pine Bend were evaluated and compared to the SO_2 NAAQS and to the previous SIP scenario using the EPA regulatory dispersion model AERMOD (version 09292), with meteorological data from 2000–2004 collected at the Minneapolis-St. Paul Airport. The comparative modeling results showed large reductions, up to approximately sixty percent, in predicted ambient SO_2 concentrations under the new operating scenario. The modeling analysis demonstrated attainment of the NAAQS for SO_2 (3-hour, 24-hour, and annual). The maximum predicted SO_2 concentrations including neighboring emission sources and a monitored background concentration were 517 micrograms per cubic meter ($\mu g/m^3$) for the 3-hour average (compared to the SO_2 NAAQS of 1300 $\mu g/m^3$); 172 $\mu g/m^3$ for the 24-hour average (compared to the SO_2 NAAQS of 365 $\mu g/m^3$); and 35 $\mu g/m^3$ for the annual average (compared to the SO_2 NAAQS of 80 $\mu g/m^3$).

The dispersion modeling for this SIP revision request did not specifically address the 1-hour SO_2 NAAQS. There were difficulties in providing a full modeled 1-hour attainment demonstration for the FHR Pine Bend SIP revision request which were beyond FHR Pine Bend's control. Because the shutdown of the Merox incinerator addresses a safety issue, Minnesota submitted the SIP revision without waiting to complete a full 1-hour SO_2 modeling demonstration. Nonattainment area designations have not yet been promulgated nationally, so the 1-hour SO_2 SIP requirements for Dakota County have not yet been determined. The air quality monitors in Dakota County clearly show that the area is currently attaining the 1-hour SO_2 NAAQS. There are four SO_2 monitors located within three miles of the FHR Pine Bend facility. The SO_2 concentrations at all four monitors are well below the 1-hour SO_2 NAAQS. The highest of the four monitors' 2008–2010 design value concentrations was 20 parts per billion (ppb)(compared to the SO_2 NAAQS of 75 ppb). For the period 2009–2011, the highest of the four Dakota County monitors' design values was 19 ppb (both design values cited here are from the same monitor). This monitor is located less than one mile east of FHR Pine Bend. Minnesota has recommended that EPA designate Dakota County ''unclassifiable'' for the 1-hour SO_2 NAAQS. Minnesota must meet the applicable requirements for Dakota County's final SO_2 designation, which may include a modeled demonstration that the entire county will continue to maintain the 1-hour SO_2 NAAQS. In the meantime, given the significant SO_2 emission reductions in the FHR Pine Bend SIP revision submittal, and the fact that the new facility operating scenario has also resulted in reductions in modeled concentrations for the other short-term SO_2 standards, EPA believes that the August 29, 2011 SIP revision submittal does not endanger Dakota County's continued attainment of the 1-hour SO_2 NAAQS, and the SIP revision will provide progress toward any future requirements for a modeled demonstration of attainment of the 1-hour SO_2 NAAQS in Dakota County. It is important to note that future SIP revision requests or modifications at this or other SO_2-emitting facilities may be required to include full modeled attainment demonstrations for the 1-hour SO_2 NAAQS, in accordance with section 110(l) of the Clean Air Act.

EPA believes that Minnesota's August 29, 2011, request to revise its SIP for FHR Pine Bend satisfies the requirements of section 110(l) of the Clean Air Act. The SIP revision addresses a plant safety issue and includes significant SO_2 reductions which will help the area continue to maintain the current SO_2 standards. Dispersion modeling shows that ambient SO_2 impacts will decrease under the new operating scenario. The SIP limits and modeling continue to account for limited use of the Merox incinerator in case it is temporarily needed during the transition to the new operating scenario. Actual operations following the shutdown of the Merox incinerator will therefore produce less SO_2 than the modeled amount. For these reasons, EPA believes that approval of the August 29, 2011 SIP revision request

will not jeopardize Dakota County's attainment of the SO_2 NAAQS.

III. What action is EPA taking?

EPA is approving Minnesota's August 29, 2011, SO_2 SIP revision request for FHR Pine Bend, in Dakota County. This SIP revision addresses an operating change based on a safety issue, and also results in a large decrease in SO_2 emissions at the facility. This SIP revision is not expected to jeopardize attainment of the SO_2 NAAQS in Dakota County.

We are publishing this action without prior proposal because we view this as a noncontroversial amendment and anticipate no adverse comments. However, in the proposed rules section of this **Federal Register** publication, we are publishing a separate document that will serve as the proposal to approve the state plan if relevant adverse written comments are filed. This rule will be effective April 1, 2013 without further notice unless we receive relevant adverse written comments by March 4, 2013. If we receive such comments, we will withdraw this action before the effective date by publishing a subsequent document that will withdraw the final action. All public comments received will then be addressed in a subsequent final rule based on the proposed action. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. If we do not receive any comments, this action will be effective April 1, 2013.

IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Clean Air Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 1, 2013. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of today's **Federal Register**, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Sulfur oxides.

Dated: January 17, 2013.

Susan Hedman,

Regional Administrator, Region 5.

40 CFR part 52 is amended as follows:

PART 52—[AMENDED]

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

■ 2. In § 52.1220, the table in paragraph (d) is amended by revising the entry for ''Flint Hills Resources, L.P. (formerly Koch Petroleum)'' to read as follows:

§ 52.1220 Identification of plan.

* * * * *

(d) * * *

EPA-APPROVED MINNESOTA SOURCE-SPECIFIC PERMITS

Name of source	Permit No.	State effective date	EPA approval date	Comments
* * *	*	*	* * *	* *
Flint Hills Resources Pine Bend, LLC.	.....	08/29/11	01/31/13, [INSERT PAGE NUMBER WHERE THE DOCUMENT BEGINS].	Amendment Nine to Findings and Order.
* * *	*	*	* * *	* *

* * * * *

[FR Doc. 2013–02019 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2012–0849; FRL–9760–4]

Revisions to the California State Implementation Plan, Placer County Air Pollution Control District

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: EPA is taking direct final action to approve revisions to the Placer County Air Pollution Control District (PCAPCD) portion of the California State Implementation Plan (SIP). These revisions concern Volatile Organic Compound (VOC), oxides of nitrogen (NO_X), and particulate matter (PM) emissions from open burning. We are approving local rules that regulate this emission source under the Clean Air Act (CAA or the Act).

DATES: This rule is effective on April 1, 2013 without further notice, unless EPA receives adverse comments by March 4, 2013. If we receive such comments, we will publish a timely withdrawal in the **Federal Register** to notify the public that this direct final rule will not take effect.

ADDRESSES: Submit comments, identified by docket number EPA–R09–OAR–2012–0849, by one of the following methods:

1. *Federal eRulemaking Portal: www.regulations.gov*. Follow the on-line instructions.

2. *Email: steckel.andrew@epa.gov*.

3. *Mail or deliver:* Andrew Steckel (Air–4), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105–3901.

Instructions: All comments will be included in the public docket without change and may be made available online at *www.regulations.gov,* including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through *www.regulations.gov* or email. *www.regulations.gov* is an ''anonymous access'' system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send email directly to EPA, your email address will be automatically captured and included as part of the public comment. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: Generally, documents in the docket for this action are available electronically at *www.regulations.gov* and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed at *www.regulations.gov,* some information may be publicly available only at the hard copy location (e.g., copyrighted material, large maps), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Rynda Kay, EPA Region IX, (415) 947–4118, *Kay.Rynda@epa.gov*.

SUPPLEMENTARY INFORMATION: Throughout this document, ''we,'' ''us,'' and ''our'' refer to EPA.

Table of Contents

I. The State's Submittal

A. What rules did the State submit?

Table 1 lists the rules we are approving with the dates that they were adopted by the local air agency and submitted by the California Air Resources Board (CARB).

TABLE 1—SUBMITTED RULES

Local agency	Rule No.	Rule title	Amended	Submitted
PCAPCD	102	Definitions	02/09/12	04/25/12
PCAPCD	301	Nonagricultural Burning Smoke Management	02/09/12	09/21/12
PCAPCD	302	Agricultural Waste Burning Smoke Management	02/09/12	09/21/12
PCAPCD	303	Prescribed Burning Smoke Management	02/09/12	09/21/12
PCAPCD	304	Land Development Burning Smoke Management	02/09/12	09/21/12
PCAPCD	305	Residential Allowable Burning	02/09/12	09/21/12

TABLE 1—SUBMITTED RULES—Continued

Local agency	Rule No.	Rule title	Amended	Submitted
PCAPCD	306	Open Burning of Nonindustrial Wood Waste at Designated Disposal Sites.	02/09/12	09/21/12

On January 7, 2012 and October 11, 2012, EPA determined that the submittals for PCAPCD Rule 102 and PCAPCD Rules 301–306 respectively, met the completeness criteria in 40 CFR Part 51 Appendix V, which must be met before formal EPA review.

B. Are there other versions of these rules?

We approved an earlier version of Rule 102 into the SIP on June 29, 1999 (64 FR 34558). PCAPCD adopted revisions to the SIP-approved version on February 9, 2012 and CARB submitted them to us on April 25, 2012.

PCAPCD has jurisdiction over portions of the Lake Tahoe Air Basin (LTAB), Mountain Counties Air Basin (MCAB), and Sacramento Valley Air Basin (SVAB). From 1979–1986 these air basin portions adopted open burning regulations, which were approved by us for inclusion into the SIP. On October 19, 1993 PCAPCD adopted a unified set of 25 open burning rules to apply district-wide, replacing the rules governing each air basin portion. CARB submitted them to us on November 30, 1994. EPA staff identified several approvability issues with the submitted rules and on May 21, 1999 PCAPCD requested that ARB withdraw these rules to be replaced with a revised submittal at a later date.

On February 10, 2011, PCAPCD adopted six new open burning rules (PCAPCD Rules 301–306), which updated and consolidated the 25 open burning rules, and submitted them to us on September 27, 2011. PCAPCD adopted revisions to Rules 301–306 on February 9, 2012 and CARB submitted them to us on September 21, 2012 to apply district-wide and requested that they supersede the individual air basin SIP approved rules listed in Table 2 below. While we can act on only the most recently submitted version, we have reviewed materials provided with previous submittals.

TABLE 2—RULES TO BE SUPERSEDED

Local agency	Rule No.	Rule title	Adopted/ amended	EPA approval (citation)
LTAB	301	Prohibitions on Open Burning	06/19/79	05/18/81 (46 FR 27115)
LTAB	302	Burning Permits	06/19/79	05/18/81 (46 FR 27115)
LTAB	303	Permit Validity	06/19/79	05/18/81 (46 FR 27115)
LTAB	304	No Burn Days	06/19/79	05/18/81 (46 FR 27115)
LTAB	305	Agricultural Burning Reports	06/19/79	05/18/81 (46 FR 27115)
LTAB	306	Amount Burned Daily	06/19/79	05/18/81 (46 FR 27115)
LTAB	307	Approved Ignition Devices	06/19/79	05/18/81 (46 FR 27115)
LTAB	308	Restricted Burning Days	06/19/79	05/18/81 (46 FR 27115)
LTAB	310	Minimum Drying Times	06/19/79	05/18/81 (46 FR 27115)
LTAB	311	Exceptions to Rule 310	06/19/79	05/18/81 (46 FR 27115)
LTAB	312	Burning of Rice Straw and Stubble	N/A	06/14/78 (43 FR 25684)
LTAB	312	Preparation of Materials to be Burned	06/19/79	05/18/81 (46 FR 27115)
LTAB	313	Burning of Agricultural Waste	06/19/79	05/18/81 (46 FR 27115)
LTAB	314	Range Improvement Burning	06/19/79	05/18/81 (46 FR 27115)
LTAB	315	Forest Management Burning	06/19/79	05/18/81 (46 FR 27115)
LTAB	317	Right of Way Clearing and Levee, Ditch and Reservoir Maintenance Burning.	06/19/79	05/18/81 (46 FR 27115)
LTAB	318	Open Burning Conducted by Public Officers	06/19/79	05/18/81 (46 FR 27115)
LTAB	319	Hazard Reduction Burning	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	301	Prohibitions on Open Burning	04/21/81	04/23/82 (47 FR 17486)
MCAB/SVAB	302	Burning Permits	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	304	Permit Validity	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	305	No Burn Days	05/27/86	04/10/89 (54 FR 14224)
MCAB/SVAB	306	Exceptions to Rule 305	04/21/81	04/23/82 (47 FR 17486)
MCAB/SVAB	307	Agricultural Burning Reports	05/20/85	07/12/90 (55 FR 28622)
MCAB/SVAB	308	Amount Burned Daily	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	309	Approved Ignition Devices	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	310	Restricted Burning Days	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	312	Minimum Drying Times, Sections A, B, and E	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	312	Minimum Drying Times, Section C	05/20/85	02/03/87 (52 FR 3226)
MCAB/SVAB	313	Exceptions to Rule 312	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	314	Preparation of Materials to be Burned, Sections A–C	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	314	Preparation of Materials to be Burned, Section D	05/20/85	02/03/87 (52 FR 3226)
MCAB/SVAB	315	Burning of Agricultural Waste, Section A	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	315	Burning of Agricultural Waste, Sections B–H	05/20/85	02/03/87 (52 FR 3226)
MCAB/SVAB	316	Range Improvement Burning	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	317	Forest Management Burning	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	319	Right of Way Clearing and Levee, Ditch and Reservoir Maintenance Burning.	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	320	Open Burning Conducted by Public Officers, Sections A–E.	06/19/79	05/18/81 (46 FR 27115)

TABLE 2—RULES TO BE SUPERSEDED—Continued

Local agency	Rule No.	Rule title	Adopted/ amended	EPA approval (citation)
MCAB/SVAB	320	Open Burning Conducted by Public Officers, Preamble.	05/20/85	02/03/87 (52 FR 3226)
MCAB/SVAB	321	Hazard Reduction Burning	06/19/79	05/18/81 (46 FR 27115)
MCAB/SVAB	324	Residential Rubbish Burning	05/20/85	02/03/87 (52 FR 3226)
MCAB/SVAB	325	Recreational Open Fires	04/21/81	04/23/82 (47 FR 17486)

C. What is the purpose of the submitted rule revisions?

VOCs and NO_X help produce ground-level ozone and smog, which harm human health and the environment. PM emissions are also harmful to human health and the environment, by causing, among other things, premature mortality, aggravation of respiratory and cardiovascular disease, decreased lung function, visibility impairment, and damage to vegetation and ecosystems. Section 110(a) of the CAA requires States to submit regulations that control VOCs, NO_X, and PM emissions. Rules 301–306 limit emissions of air pollutants, including VOCs, NO_X and PM, which result from open burning.

The purpose of Rules 301–306 was to reorganize the District's existing rules into six new rules based on burn type, for clarity and ease of understanding; to incorporate amendments to the California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 2, Smoke Management Guidelines for Agricultural and Prescribed Burning; to incorporate the requirements of California Code of Regulations, Title 17, Division 3, Subchapter 7.5, § 93113, Airborne Toxic Control Measure to Reduce Emissions of Toxic Air Contaminants from Outdoor Residential Waste Burning; and to address approvability issues identified in previous SIP submittals. Rule 102 adds new or revised definitions associated with Rules 301–306, as well as several other minor administrative revisions. EPA's technical support documents (TSDs) for these rules have more information about these rules.

II. EPA's Evaluation and Action

A. How is EPA evaluating the rules?

Generally, SIP rules must be enforceable (see section 110(a) of the Act) and must not relax existing requirements (see sections 110(l) and 193).

Guidance and policy documents that we use to evaluate enforceability requirements consistently include the following:

1. ''Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations; Clarification to Appendix D of November 24, 1987 **Federal Register** Notice,'' (Blue Book), notice of availability published in the May 25, 1988 **Federal Register**.

2. ''Guidance Document for Correcting Common VOC & Other Rule Deficiencies,'' EPA Region 9, August 21, 2001 (the Little Bluebook).

PCAPCD regulates an ozone nonattainment area (40 CFR Part 81).[1] CAA § 172(c)(1) requires nonattainment areas to implement all reasonably available control measures (RACM) as expeditiously as practicable. Open burning emits PM_{10} and $PM_{2.5}$ directly, as well as VOCs and NO_X, which are precursors to ozone and $PM_{2.5}$. Therefore, PCAPCD must implement RACM for open burning if those measures will advance attainment of the National Ambient Air Quality Standard (NAAQS) for $PM_{2.5}$ or ozone, when considered collectively with other reasonable measures. Additional control measures may be required pursuant to CAA § 172(c)(1) if both: (1) Additional measures are reasonably available; and (2) these additional reasonably available measures will advance attainment in the area when considered collectively.

PCAPCD is currently designated attainment for PM_{10} (40 CFR 81.305). Accordingly, PCAPCD is not subject to the requirement to implement Best Available Control Measures (BACM) for PM_{10} and PM_{10} precursors in CAA § 189(b) and (e). Therefore, we are not evaluating the rules for compliance with BACM requirements.

B. Do the rules meet the evaluation criteria?

The changes in Rule 102, Definitions, are administrative only and are consistent with the relevant policy and guidance regarding enforceability and SIP relaxations.

Rules 301–306 increase enforceability by increasing clarity of requirements through having all information related to a burn type in one rule, by providing new definitions, and by increasing specificity on permit and recordkeeping requirements. Several provisions in the submitted rules, however, provide for Air Pollution Control Officer (APCO) discretion to allow burning on a No-Burn Day. EPA generally discourages SIP provisions that allow APCO discretion to independently interpret the SIP, but acknowledges that such ''director's discretion may be appropriate if explicit and replicable procedures within the rule tightly define how the discretion will be exercised,'' (see e.g., the Little Blue Book and 52 FR 45109, November 24, 1987). We believe that all such revisions in Rules 301–306 include appropriate limitations on APCO's discretion as discussed in detail the TSD.

Rule 301–306 revisions were primarily editorial to provide a consolidated rule set and improve clarity. There are, however, several Local Rules used in the consolidation which were not previously approved into the SIP. Additionally, several new provisions are included that are less stringent than the SIP approved rules. At this time, we believe all revisions are reasonable and appropriately limited and would not cause adverse affect on the NAAQS or reasonable further progress (CAA section 110(l)) as evaluated in detail in the TSD.

We believe the current Rules 301–306 require all control measures that are ''reasonably available'' considering technologic and economic feasibility, for reasons including the following: (1) PCAPCD Rules 302–303 implement more detailed smoke management requirements and burn authorizations for agricultural burning. EPA previously identified the implementation of a smoke management program for prescribed and agricultural burning as RACM level controls for PM_{10}. (2) Rule revisions (as detailed in the TSD) do not interfere with attainment of the NAAQS or reasonable further progress and

[1] PCAPCD also regulates a nonattainment area under the 2006 24-Hour $PM_{2.5}$ NAAQS. 40 CFR 81.305 (2010). By December 14, 2012, California must submit a revision to the SIP for this nonattainment area that provides for, among other things, implementation of all RACM as expeditiously as practicable (including RACT for existing sources). CAA section 172(a)(2)(A), (b) & (c)(1), 74 FR 58689 (Nov. 13, 2009). EPA will take action on this RACM demonstration in a separate future rulemaking.

overall strengthen the SIP. 3) We have compared the control requirements in PCAPCD Rules 301–306 with analogous rules in other local districts and believe they are generally as stringent as those rules. Where they are less stringent (e.g., areas of high elevation and low population), PCAPCD has provided reasonable justifications.

C. EPA Recommendations To Further Improve the Rules

The TSD describes additional rule revisions that we recommend for the next time the local agency modifies the rules.

D. Public Comment and Final Action

As authorized in section 110(k)(3) of the Act, EPA is fully approving the submitted rules because we believe they fulfill all relevant requirements. We do not think anyone will object to this approval, so we are finalizing it without proposing it in advance. However, in the Proposed Rules section of this **Federal Register**, we are simultaneously proposing approval of the same submitted rules. If we receive adverse comments by March 4, 2013, we will publish a timely withdrawal in the **Federal Register** to notify the public that the direct final approval will not take effect and we will address the comments in a subsequent final action based on the proposal. If we do not receive timely adverse comments, the direct final approval will be effective without further notice on April 1, 2013. This will incorporate the rules into the federally enforceable SIP, which will supersede rules listed in Table 2.

Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment.

III. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve State choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

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In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 1, 2013. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the Proposed Rules section of today's **Federal Register**, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements (see section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: November 19, 2012.

Jared Blumenfeld,

Regional Administrator, Region IX.

Part 52, Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart F—California

■ 2. Section 52.220 is amended by adding paragraphs (c)(419) (i)(B) and(423)to read as follows:

§ 52.220 Identification of plan.

* * * * *

(c) * * *

(419) * * * *

(i) * * *

(B) Placer County Air Pollution Control District

(*1*) Rule 102, ''Definitions,'' amended February 9, 2012.

* * * * *

(423) New and amended regulations for the following APCDs were submitted on September 21, 2012, by the Governor's designee. (i) Incorporation by reference.

(A) Placer County Air Pollution Control District

(*1*) Rule 301, ''Nonagricultural Burning Smoke Management,'' amended on February 9, 2012.

(*2*) Rule 302, ''Agricultural Waste Burning Smoke Management,'' amended on February 9, 2012.

(*3*) Rule 303, ''Prescribed Burning Smoke Management,'' amended on February 9, 2012.

(*4*) Rule 304, ''Land Development Burning Smoke Management,'' amended on February 9, 2012.

(*5*) Rule 305, ''Residential Allowable Burning,'' amended on February 9, 2012.

(*6*) Rule 306, ''Open Burning of Nonindustrial Wood Waste at Designated Disposal Sites,'' amended on February 9, 2012.

[FR Doc. 2013–01332 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2012–0614; FRL–9771–3]

Revisions to the California State Implementation Plan, San Joaquin Valley United Air Pollution Control District

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is finalizing approval of revisions to the San Joaquin Valley United Air Pollution Control District (SJVUAPCD) portion of the California State Implementation Plan (SIP). This action was proposed in the **Federal Register** on November 5, 2012 and concerns volatile organic compounds (VOC), carbon monoxide (CO), oxides of nitrogen (NO_X), oxides of sulfur (SO_X), and particulate matter (PM) emissions from glass melting furnaces. We are approving a local rule that regulates these emission sources under the Clean Air Act (CAA or the Act).

DATES: This rule will be effective on March 4, 2013.

ADDRESSES: EPA has established docket number EPA–R09–OAR–2012–0614 for this action. Generally, documents in the docket for this action are available electronically at *http://www.regulations.gov* or in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California 94105–3901. While all documents in the docket are listed at *http://www.regulations.gov,* some information may be publicly available only at the hard copy location (e.g., copyrighted material, large maps, multi-volume reports), and some may not be available in either location (e.g., confidential business information (CBI)). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Robert Marinaro, EPA Region IX, (415) 972–3019, *marinaro.robert@epa.gov*.

SUPPLEMENTARY INFORMATION: Throughout this document, ''we,'' ''us'' and ''our'' refer to EPA.

Table of Contents

I. Proposed Action

On November 5, 2012 (77 FR 66429), EPA proposed to approve the following rule into the California SIP.

Local agency	Rule No.	Rule title	Adopted	Submitted
SJVUAPCD	4354	Limiting Emissions from Glass Melting Furnaces	05/19/11	09/27/11

We proposed to approve this because we determined that it complied with the relevant CAA requirements. Our proposed action contains more information on the rule and our evaluation.

II. Public Comments and EPA Responses

EPA's proposed action provided a 30-day public comment period. During this period, we received no comments.

III. EPA Action

No comments were submitted. Therefore, as authorized in section 110(k)(3) of the Act, EPA is fully approving this rule into the California SIP.

IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve State choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address disproportionate human health or environmental effects with practical, appropriate, and legally permissible methods under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 1, 2013. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements (see section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Sulfur oxides, Ozone, Particulate matter, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: December 19, 2012.

Jared Blumenfeld,

Regional Administrator, Region IX.

Part 52, Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart F—California

■ 2. Section 52.220 is amended by adding paragraph(c)(404)(i)(D) to read as follows:

§ 52.220 Identification of plan.

* * * * *

(c) * * *

(404) * * *

(i) * * *

(D) San Joaquin Valley Unified Air Pollution Control District.

(*1*) Rule 4354, ''Glass Melting Furnaces,'' amended on May 19, 2011.

* * * * *

[FR Doc. 2013–02015 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA–R01–OAR–2012–0290; FRL–9768–7]

Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; New Hampshire; Redesignation of the Southern New Hampshire 1997 8-Hour Ozone Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is approving: the State of New Hampshire's request to redesignate the Boston-Manchester-Portsmouth (SE), New Hampshire moderate 8-hour ozone nonattainment area to attainment for the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS); a State Implementation Plan (SIP) revision containing a 10-year ozone maintenance plan for this area; a 2008 comprehensive emissions inventory for the area; and new motor vehicle emissions budgets (MVEBs) for the years 2008 and 2022 that are contained in the 10-year ozone maintenance plan for this area.

DATES: *Effective Date:* This rule is effective on March 4, 2013.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R01–OAR–2012–0290. All documents in the docket are listed on the *www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the Office of Ecosystem Protection, U.S. Environmental Protection Agency, EPA New England Regional Office, One Congress Street, Suite 1100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30, excluding legal holidays. Copies of the documents relevant to this action are also available for public inspection during normal business hours, by appointment at the State Air Agency: Air Resources Division, Department of Environmental Services, 6 Hazen Drive, Concord, NH.

FOR FURTHER INFORMATION CONTACT: Richard P. Burkhart, Air Quality Planning Unit, U.S. Environmental Protection Agency, EPA New England Regional Office, One Congress Street, Suite 1100 (CAQ), Boston, MA 02114–2023, telephone number (617) 918–1664, fax number (617) 918–0664, email *Burkhart.Richard@epa.gov*.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background

On October 25, 2012 (77 FR 65151), EPA published a notice of proposed rulemaking (NPR) for the State of New Hampshire. The NPR proposed approval of New Hampshire's request to redesignate the Boston-Manchester-Portsmouth (SE), New Hampshire 1997 8-hour ozone nonattainment area (hereafter, the ''Southern NH'' area) and a SIP revision that establishes a maintenance plan for this area. The maintenance plan sets forth how the area will maintain attainment of the 1997 8-hour ozone NAAQS for the next 10 years in accordance with Section 175A of the Clean Air Act (CAA). The NPR also proposed approval of the motor vehicle emission budgets (MVEBs) associated with the maintenance plan, as well as a 2008 comprehensive emission inventory for the area. The New Hampshire Department of Environmental Services (NH DES) submitted the request to redesignate the Southern NH area to attainment of the 1997 8-hour ozone standard on March 2, 2012, with a supplement submitted on September 21, 2012. The specific details of New Hampshire's redesignation request, 175A maintenance plan, and MVEBs, and the rationale for EPA's proposed

approval are explained in the NPR and will not be restated here. No public comments were received on the NPR.

The NPR stated that EPA would act on several outstanding issues before we finalized approval of the redesignation request and the associated maintenance plan. All outstanding actions have been completed. The final rulemaking notice on the determinations of attainment for the New Hampshire areas for the one-hour ozone standard was published on October 30, 2012 (77 FR 65625). The approval of New Hampshire's Reasonably Available Control Technology (RACT) Certification SIP for the 1997 8-hour ozone standard was published on November 5, 2012 (77 FR 66388). The approval of New Hampshire's SIP addressing EPA's 2006, 2007, and 2008 Control Technique Guidelines (CTGs) was published on November 8, 2012 (77 FR 66921). Finally, the approval of New Hampshire's Vehicle Inspection and Maintenance (I/M) SIP was signed by the Regional Administrator on November 14, 2012 and forwarded for publication in the **Federal Register**. A copy of the signed approval of New Hampshire's I/M SIP is available in the docket for this action. In addition, preliminary 2012 ozone data available for the area is well below the 1997 ozone NAAQS.

II. Final Action

EPA is approving the State of New Hampshire's March 2, 2012 (supplemented on September 21, 2012) redesignation request and maintenance plan for the Southern NH area, because the requirements for approval have been satisfied. EPA has evaluated New Hampshire's redesignation request, and determined that it meets the redesignation criteria set forth in section 107(d)(3)(E) of the Clean Air Act. EPA believes that the redesignation request and monitoring data demonstrate that the area has attained the 1997 8-hour ozone standard. The final approval of this redesignation request will change the designation of the Southern NH area from nonattainment to attainment for the 1997 8-hour ozone standard. EPA is also approving the associated ozone maintenance plan for this area, submitted on March 2, 2012, and supplemented on September 21, 2012, as a revision to the New Hampshire SIP. EPA is approving the ozone maintenance plan for the area because it meets the requirements of section 175A of the CAA. In addition, EPA is also withdrawing the previously SIP-approved 2009 MVEBs prepared with the MOBILE6.2 model and approving the 2008 and 2022 MVEBs prepared with the MOVES model that are associated with the ozone maintenance plan. Finally, EPA is approving the 2008 comprehensive emission inventory for the Southern NH area under CAA section 182(a)(1).

III. Statutory and Executive Order Reviews

Under the CAA, redesignation of an area to attainment and the accompanying approval of a maintenance plan under section 107(d)(3)(E) are actions that affect the status of a geographical area and do not impose any additional regulatory requirements on sources beyond those imposed by state law. A redesignation to attainment does not in and of itself create any new requirements, but rather results in the applicability of requirements contained in the CAA for areas that have been redesignated to attainment. Moreover, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. These actions do not impose additional requirements beyond those imposed by state law and the CAA. For that reason, these actions:

- Are not ''significant regulatory actions'' subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Do not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Are certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Do not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Are not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Are not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Are not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Do not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because redesignation is an action that affects the status of a geographical area and does not impose any new regulatory requirements on tribes, impact any existing sources of air pollution on tribal lands, nor impair the maintenance of ozone national ambient air quality standards in tribal lands.

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 1, 2013. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

40 CFR Part 81

Environmental protection, Air pollution control, National parks, Wilderness areas.

Dated: December 27, 2012.

H. Curtis Spalding,

Regional Administrator, EPA New England.

40 CFR parts 52 and 81 are amended as follows:

PART 52—[APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS]

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart EE—New Hampshire

■ 2. Section 52.1534 is amended by adding paragraph (i) to read as follows:

§ 52.1534 Control strategy: Ozone.

* * * * *

(i) Approval—EPA is approving a redesignation request for the Boston-Manchester-Portsmouth (SE), New Hampshire moderate 1997 8-hour ozone nonattainment area. New Hampshire submitted this request on March 2, 2012, and supplemented this submittal on September 21, 2012. As part of the redesignation request, the State submitted a maintenance plan as required by section 175A of the Clean Air Act. Elements of the section 175 maintenance plan include a contingency plan and an obligation to submit a subsequent maintenance plan revision as required by the Clean Air Act. The ozone maintenance plan also establishes 2008 and 2022 Motor Vehicle Emission Budgets (MVEBs) for the area. New Hampshire is establishing 2008 MVEBs of 17.8 tons per summer weekday (tpswd) of VOC and 37.2 tpswd of NO_X, for the Boston-Manchester-Portsmouth (SE), New Hampshire 1997 8-hour ozone maintenance area. In addition, New Hampshire is establishing MVEBs for 2022 at 9.2 tpswd of VOC and 11.8 tpswd of NO_X, for the same area. The 2008 and 2022 MVEBs were prepared with the MOVES model. Previously SIP-approved 2009 MVEBs prepared with MOBILE6.2 are being withdrawn. Finally, EPA is also approving a comprehensive 2008 emission inventory for this area.

PART 81—[DESIGNATION OF AREAS FOR AIR QUALITY PLANNING PURPOSES]

■ 3. The authority citation for part 81 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

■ 4. Section 81.330 is amended by revising the entry for the Boston-Manchester-Portsmouth (SE), in the New Hampshire 1997 8-hour Ozone NAAQS (Primary and Secondary) table to read as follows:

§ 81.330 New Hampshire

* * * * *

NEW HAMPSHIRE—1997 8-HOUR OZONE NAAQS (PRIMARY AND SECONDARY)

Designated area	Designation [a]		Category/Classification	
	Date [1]	Type	Date [1]	Type
Boston-Manchester-Portsmouth (SE), NH:				
Hillsborough County (part) Amherst Town, Bedford Town, Brookline Town, Goffstown Town, Hollis Town, Hudson Town, Litchfield Town, Manchester City, Merrimack Town, Milford Town, Nashua City, Pelham Town.	3/4/2013	Attainment		
Merrimack County (part) Hooksett Town	3/4/2013	Attainment		
Rockingham County (part) Atkinson Town, Auburn Town, Brentwood Town, Candia Town, Chester Town, Danville Town, Derry Town, E. Kingston Town, Epping Town, Exeter Town, Fremont Town, Greenland Town, Hampstead Town, Hampton Town, Hampton Falls Town, Kensington Town, Kingston Town, Londonderry Town, New Castle Town, Newfields Town, Newington Town, Newmarket Town, Newton Town, North Hampton Town, Plaistow Town, Portsmouth City, Raymond Town, Rye Town, Salem Town, Sandown Town, Seabrook Town, South Hampton Town, Stratham Town, Windham Town.	3/4/2013	Attainment		
Strafford County (part) Dover City, Durham Town, Rochester City, Rollinsford Town, and Somersworth City.	3/4/2013	Attainment		
*	*	*	*	*	*	*

[a] Includes Indian country located in each county or area, except otherwise specified.
[1] This date is June 15, 2004, unless otherwise noted.

* * * * *

[FR Doc. 2013–00182 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

44 CFR Part 67

[Docket ID FEMA–2013–0002]

Final Flood Elevation Determinations

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Final rule.

SUMMARY: Base (1% annual-chance) Flood Elevations (BFEs) and modified BFEs are made final for the communities listed below. The BFEs and modified BFEs are the basis for the floodplain management measures that each community is required either to adopt or to show evidence of being already in effect in order to qualify or remain qualified for participation in the National Flood Insurance Program (NFIP).

DATES: The date of issuance of the Flood Insurance Rate Map (FIRM) showing

BFEs and modified BFEs for each community. This date may be obtained by contacting the office where the maps are available for inspection as indicated in the table below.

ADDRESSES: The final BFEs for each community are available for inspection at the office of the Chief Executive Officer of each community. The respective addresses are listed in the table below.

FOR FURTHER INFORMATION CONTACT: Luis Rodriguez, Chief, Engineering Management Branch, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472, (202) 646–4064, or (email) *Luis.Rodriguez3@fema.dhs.gov.*

SUPPLEMENTARY INFORMATION: The Federal Emergency Management Agency (FEMA) makes the final determinations listed below for the modified BFEs for each community listed. These modified elevations have been published in newspapers of local circulation and ninety (90) days have elapsed since that publication. The Deputy Associate Administrator for Mitigation has resolved any appeals resulting from this notification.

This final rule is issued in accordance with section 110 of the Flood Disaster Protection Act of 1973, 42 U.S.C. 4104, and 44 CFR part 67. FEMA has developed criteria for floodplain management in floodprone areas in accordance with 44 CFR part 60.

Interested lessees and owners of real property are encouraged to review the proof Flood Insurance Study and FIRM available at the address cited below for each community. The BFEs and modified BFEs are made final in the communities listed below. Elevations at selected locations in each community are shown.

National Environmental Policy Act. This final rule is categorically excluded from the requirements of 44 CFR part 10, Environmental Consideration. An environmental impact assessment has not been prepared.

Regulatory Flexibility Act. As flood elevation determinations are not within the scope of the Regulatory Flexibility Act, 5 U.S.C. 601–612, a regulatory flexibility analysis is not required.

Regulatory Classification. This final rule is not a significant regulatory action under the criteria of section 3(f) of Executive Order 12866 of September 30, 1993, Regulatory Planning and Review, 58 FR 51735.

Executive Order 13132, Federalism. This final rule involves no policies that have federalism implications under Executive Order 13132.

Executive Order 12988, Civil Justice Reform. This final rule meets the applicable standards of Executive Order 12988.

List of Subjects in 44 CFR Part 67

Administrative practice and procedure, Flood insurance, Reporting and recordkeeping requirements.

Accordingly, 44 CFR part 67 is amended as follows:

PART 67—[AMENDED]

■ 1. The authority citation for part 67 continues to read as follows:

Authority: 42 U.S.C. 4001 *et seq.;* Reorganization Plan No. 3 of 1978, 3 CFR, 1978 Comp., p. 329; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp., p. 376.

§ 67.11 [Amended]

■ 2. The tables published under the authority of § 67.11 are amended as follows:

Flooding source(s)	Location of referenced elevation	* Elevation in feet (NGVD) + Elevation in feet (NAVD) # Depth in feet above ground ^ Elevation in meters (MSL) modified	Communities affected
Allen County, Ohio, and Incorporated Areas Docket No.: FEMA–B–1192			
Auglaize River	Approximately 0.7 mile downstream of Greely Chapel Road.	+909	Unincorporated Areas of Allen County.
	Approximately 750 feet upstream of Faulkner Road	+965	
Dug Run	At the Ottawa River confluence	+780	City of Lima, Unincorporated Areas of Allen County.
	Approximately 100 feet downstream of North Cable Road	+827	
Dug Run Tributary	At the Dug Run confluence	+813	Unincorporated Areas of Allen County.
	At the downstream side of Eastown Road	+823	
Flat Fork Creek	Approximately 0.4 mile downstream of East 7th Street	+762	Unincorporated Areas of Allen County.
	Approximately 0.6 mile upstream of State Highway 66 (Spencerville Avenue).	+776	
Freed Ditch	At the Little Ottawa River confluence	+867	Unincorporated Areas of Allen County, Village of Fort Shawnee.
	Approximately 1,600 feet upstream of the Little Ottawa River confluence.	+870	
Hog Creek	At the Ottawa River confluence	+900	Unincorporated Areas of Allen County.
	At the downstream side of County Highway 15 (Hardin Road).	+924	
Jennings Creek	Approximately 400 feet downstream of Pohlman Road	+760	City of Delphos, Unincorporated Areas of Allen County.
	Approximately 200 feet upstream of Pohlman Road	+760	

Flooding source(s)	Location of referenced elevation	* Elevation in feet (NGVD) + Elevation in feet (NAVD) # Depth in feet above ground ∧ Elevation in meters (MSL) modified	Communities affected
Little Ottawa River	At the Ottawa River confluence	+827	Unincorporated Areas of Allen County, Village of Fort Shawnee.
	Approximately 0.8 mile upstream of Hume Road	+881	
Little Riley Creek	At the upstream side of Columbus Grove Bluffton Road	+820	Unincorporated Areas of Allen County.
	Approximately 150 feet upstream of Columbus Grove Bluffton Road.	+820	
Lost Creek	At the Ottawa River confluence	+863	Unincorporated Areas of Allen County.
	At the downstream side of Cool Road	+928	
Lost Creek Tributary	At the downstream side of State Highway 117/309	+875	Unincorporated Areas of Allen County.
	Approximately 50 feet upstream of State Highway 117/309.	+875	
Ottawa River	Approximately 1.1 miles downstream of Lincoln Highway	+767	City of Lima, Unincorporated Areas of Allen County, Village of Elida.
	At the Hog Creek confluence	+900	
Pike Run	At the Ottawa River confluence	+769	City of Lima, Unincorporated Areas of Allen County.
	Approximately 300 feet downstream of Knollwood Drive	+829	
Sugar Creek	Approximately 1.2 miles downstream of Hookwaltz Road	+776	City of Lima, Unincorporated Areas of Allen County.
	At the downstream side of Phillips Road	+881	
Unnamed tributary No. 3 to Little Ottawa River.	Approximately 1,500 feet upstream of the Little Ottawa River confluence.	+835	Unincorporated Areas of Allen County, Village of Fort Shawnee.
	Approximately 0.5 mile upstream of the Little Ottawa River confluence.	+839	

* National Geodetic Vertical Datum.
+ North American Vertical Datum.
# Depth in feet above ground.
∧ Mean Sea Level, rounded to the nearest 0.1 meter.

ADDRESSES

City of Delphos
Maps are available for inspection at City Hall, 608 North Canal Street, Delphos, OH 45833.

City of Lima
Maps are available for inspection at City Hall, 50 Town Square, Lima, OH 45801.

Unincorporated Areas of Allen County
Maps are available for inspection at the Allen County Courthouse, 301 North Main Street, Lima, OH 45802.

Village of Elida
Maps are available for inspection at the Village Hall, 200 West Main Street, Elida, OH 45807.

Village of Fort Shawnee
Maps are available for inspection at the Village Hall, 2050 West Breese Road, Fort Shawnee, OH 45806.

(Catalog of Federal Domestic Assistance No. 97.022, ''Flood Insurance.'')

James A. Walke,

Acting Deputy Associate Administrator for Mitigation, Department of Homeland Security, Federal Emergency Management Agency.

[FR Doc. 2013–02072 Filed 1–30–13; 8:45 am]

BILLING CODE 9110–12–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

44 CFR Part 67

[Docket ID FEMA–2013–0002]

Final Flood Elevation Determinations

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Final rule.

SUMMARY: Base (1% annual-chance) Flood Elevations (BFEs) and modified BFEs are made final for the communities listed below. The BFEs and modified BFEs are the basis for the floodplain management measures that each community is required either to adopt or to show evidence of being already in effect in order to qualify or remain qualified for participation in the National Flood Insurance Program (NFIP).

DATES: The date of issuance of the Flood Insurance Rate Map (FIRM) showing

BFEs and modified BFEs for each community. This date may be obtained by contacting the office where the maps are available for inspection as indicated in the table below.

ADDRESSES: The final BFEs for each community are available for inspection at the office of the Chief Executive Officer of each community. The respective addresses are listed in the table below.

FOR FURTHER INFORMATION CONTACT: Luis Rodriguez, Chief, Engineering Management Branch, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472, (202) 646–4064, or (email) *Luis.Rodriguez3@fema.dhs.gov.*

SUPPLEMENTARY INFORMATION: The Federal Emergency Management Agency (FEMA) makes the final determinations listed below for the modified BFEs for each community listed. These modified elevations have been published in newspapers of local circulation and ninety (90) days have elapsed since that publication. The Deputy Associate Administrator for Mitigation has resolved any appeals resulting from this notification.

This final rule is issued in accordance with section 110 of the Flood Disaster Protection Act of 1973, 42 U.S.C. 4104, and 44 CFR part 67. FEMA has developed criteria for floodplain management in floodprone areas in accordance with 44 CFR part 60.

Interested lessees and owners of real property are encouraged to review the proof Flood Insurance Study and FIRM available at the address cited below for each community. The BFEs and modified BFEs are made final in the communities listed below. Elevations at selected locations in each community are shown.

National Environmental Policy Act. This final rule is categorically excluded from the requirements of 44 CFR part 10, Environmental Consideration. An environmental impact assessment has not been prepared.

Regulatory Flexibility Act. As flood elevation determinations are not within the scope of the Regulatory Flexibility Act, 5 U.S.C. 601–612, a regulatory flexibility analysis is not required.

Regulatory Classification. This final rule is not a significant regulatory action under the criteria of section 3(f) of Executive Order 12866 of September 30, 1993, Regulatory Planning and Review, 58 FR 51735.

Executive Order 13132, Federalism. This final rule involves no policies that have federalism implications under Executive Order 13132.

Executive Order 12988, Civil Justice Reform. This final rule meets the applicable standards of Executive Order 12988.

List of Subjects in 44 CFR Part 67

Administrative practice and procedure, Flood insurance, Reporting and recordkeeping requirements.

Accordingly, 44 CFR part 67 is amended as follows:

PART 67—[AMENDED]

■ 1. The authority citation for part 67 continues to read as follows:

Authority: 42 U.S.C. 4001 *et seq.;* Reorganization Plan No. 3 of 1978, 3 CFR, 1978 Comp., p. 329; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp., p. 376.

§ 67.11 [Amended]

■ 2. The tables published under the authority of § 67.11 are amended as follows:

Flooding source(s)	Location of referenced elevation	* Elevation in feet (NGVD) + Elevation in feet (NAVD) # Depth in feet above ground ^ Elevation in meters (MSL) modified	Communities affected
Monroe County, Pennsylvania (All Jurisdictions) Docket No.: FEMA–B–1232			
Appenzell Creek	Approximately 100 feet upstream of the McMichaels Creek confluence.	+486	Township of Hamilton, Township of Jackson.
	Approximately 975 feet upstream of LR 45056	+871	
Aquashicola Creek	At the Carbon County Boundary (approximately 2.2 miles downstream of Lower Smith Gap Road).	+467	Township of Eldred, Township of Ross.
	Approximately 1.2 miles upstream of the most upstream Upper Smith Gap Road crossing.	+580	
Brodhead Creek Reach 1	At the Delaware River confluence	+323	Township of Smithfield.
	Approximately 0.5 mile upstream of State Route 2028	+323	
Buck Hill Creek	Approximately 160 feet upstream of the Brodhead Creek Reach 2 and Middle Branch Tributary confluence.	+1017	Township of Barrett, Township of Coolbaugh.
	Approximately 2.2 miles upstream of State Route 191	+2012	
Bushkill Creek	Approximately 1,100 feet downstream of Club House Drive.	+470	Township of Middle Smithfield.
	Approximately 1,130 feet upstream of State Route 402	+756	
Cherry Creek	At the Delaware River confluence	+323	Borough of Delaware Water Gap, Township of Hamilton, Township of Smithfield, Township of Stroud.
	Approximately 1,250 feet upstream of Spring Mountain Lane.	+635	
Cranberry Creek at Paradise	At the upstream side of Browns Hill Road	+715	Township of Paradise.
	Approximately 200 feet upstream of Snowbird Lane	+1092	
Cranberry Creek at Pocono	At the Pocono Creek confluence	+796	Township of Pocono.
	Approximately 580 feet downstream of State Route 611	+817	

Flooding source(s)	Location of referenced elevation	* Elevation in feet (NGVD) + Elevation in feet (NAVD) # Depth in feet above ground ∧ Elevation in meters (MSL) Modified	Communities affected
Delaware River	Approximately 1.3 miles downstream of I–80	+315	Borough of Delaware Water Gap, Township of Middle Smithfield, Township of Smithfield.
	Approximately 14.8 miles upstream of I–80	+357	
Kettle Creek	At the Appenzell Creek confluence	+491	Township of Hamilton.
	Approximately 200 feet upstream of the Appenzell Creek confluence.	+492	
Lehigh River Reach 2	Approximately 1.4 miles downstream of State Route 4003	+1512	Township of Coolbaugh, Township of Tobyhanna.
	Approximately 780 feet upstream of T–303	+1617	
Marshalls Creek	At the Brodhead Creek Reach 1 confluence	+323	Township of Middle Smithfield, Township of Smithfield.
	Approximately 2.6 miles upstream of Wooddale Road	+1144	
Pocono Creek	Approximately 1,000 feet upstream of the McMichaels Creek confluence.	+416	Borough of Stroudsburg, Township of Hamilton, Township of Pocono, Township of Stroud.
	Approximately 0.8 mile upstream of Wilke Road	+1441	
Sambo Creek	Approximately 60 feet downstream of the railroad	+444	Township of Stroud.
	Approximately 1,500 feet upstream of State Route 447 (extended).	+451	
Scot Run	At the Pocono Creek confluence	+955	Township of Pocono.
	Approximately 450 feet downstream of State Route 611	+955	
Shawnee Creek Reach 1	At the Delaware River confluence	+326	Township of Smithfield.
	Approximately 100 feet upstream of River Road	+326	
Swiftwater Creek	Approximately 1,580 feet downstream of State Route 314	+1163	Township of Pocono, Township of Tobyhanna.
	Approximately 2.7 miles upstream of Lake Minausin Dam	+1736	
Tributary 4 to Pocono Creek	At the Pocono Creek confluence	+861	Township of Pocono.
	Approximately 110 feet downstream of Alger Avenue	+865	

* National Geodetic Vertical Datum.

+ North American Vertical Datum.
# Depth in feet above ground.
∧ Mean Sea Level, rounded to the nearest 0.1 meter.

ADDRESSES

Borough of Delaware Water Gap
Maps are available for inspection at the Municipal Building, 49 Main Street, Delaware Water Gap, PA 18327.

Borough of Stroudsburg
Maps are available for inspection at the Municipal Building, 700 Sarah Street, Stroudsburg, PA 18360.

Township of Barrett
Maps are available for inspection at the Barrett Township Hall, 993 State Route 390, Cresco, PA 18326.

Township of Coolbaugh
Maps are available for inspection at the Coolbaugh Township Municipal Center, 5550 Memorial Boulevard, Tobyhanna, PA 18466.

Township of Eldred
Maps are available for inspection at the Eldred Township Office, 490 Kunkletown Road, Kunkletown, PA 18058.

Township of Hamilton
Maps are available for inspection at the Hamilton Township Municipal Building, 229 Fenner Avenue, Sciota, PA 18354.

Township of Jackson
Maps are available for inspection at the Jackson Township Municipal Building, 2162 State Route 715, Stroudsburg, PA 18360.

Township of Middle Smithfield
Maps are available for inspection at the Middle Smithfield Township Office, Schoonover Municipal Building, 25 Municipal Drive, East Stroudsburg, PA 18301.

Township of Paradise
Maps are available for inspection at the Paradise Township Municipal Building, 5912 Paradise Valley Road, Cresco, PA 18326.

Township of Pocono
Maps are available for inspection at the Pocono Township Municipal Building, 112 Township Way, Tannersville, PA 18372.

Township of Ross
Maps are available for inspection at the Ross Township Municipal Building, 258 Anchorage Road, Saylorsburg, PA 18353.

Township of Smithfield
Maps are available for inspection at the Smithfield Township Municipal Center, 1155 Red Fox Road, East Stroudsburg, PA 18301.

Flooding source(s)	Location of referenced elevation	* Elevation in feet (NGVD) + Elevation in feet (NAVD) # Depth in feet above ground ∧ Elevation in meters (MSL) Modified	Communities affected

Township of Stroud
Maps are available for inspection at the Stroud Township Municipal Center, 1211 North 5th Street, Stroudsburg, PA 18360.

Township of Tobyhanna
Maps are available for inspection at the Tobyhanna Township Municipal Building, 105 Government Center Way, Pocono Pines, PA 18350.

(Catalog of Federal Domestic Assistance No. 97.022, ''Flood Insurance.'')

James A. Walke,

Acting Deputy Associate Administrator for Mitigation, Department of Homeland Security, Federal Emergency Management Agency.

[FR Doc. 2013–02071 Filed 1–30–13; 8:45 am]

BILLING CODE 9110–12–P

Proposed Rules

Federal Register
Vol. 78, No. 21
Thursday, January 31, 2013

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2012–1327; Directorate Identifier 2012–NE–47–AD]

RIN 2120–AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Rolls-Royce plc (RR) models RB211 Trent 768–60, 772–60, and 772B–60 turbofan engines. This proposed AD was prompted by low-pressure (LP) compressor blade partial airfoil release events. This proposed AD would require a one-time ultrasonic C-scan inspection of LP compressor blades that had accumulated more than 2,500 flight cycles since new. We are proposing this AD to prevent LP compressor blade airfoil separations, engine damage, and damage to the airplane.

DATES: We must receive comments on this proposed AD by April 1, 2013.

ADDRESSES: You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov* and follow the instructions for sending your comments electronically.
- *Mail:* Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* 202–493–2251.

For service information identified in this proposed AD, contact Rolls-Royce plc, P.O. Box 31, Derby DE24 8BJ, UK; phone: 44 (0) 1332 242424; fax: 44 (0) 1332 249936. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781–238–7125.

Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov;* or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800–647–5527) is the same as the Mail address provided in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781–238–7754; fax: 781–238–7199; email: *Robert.Green@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2012–1327; Directorate Identifier 2012–NE–47–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477–78).

Discussion

The European Aviation Safety Agency (EASA), which is the aviation authority for the Member States of the European Community, has issued EASA AD 2012–0247, dated November 20, 2012, a mandatory continuing airworthiness information (referred to hereinafter as ''MCAI''), to correct an unsafe condition for the specified products. The MCAI states:

> Low Pressure (LP) compressor partial aerofoil blade release events have occurred in service on RR Trent 700 engines. While primary containment of the released sections has been achieved in each case, some of the releases did exhibit secondary effects that are considered to present a potential hazard. Previously, expeditious actions by RR have mitigated the risks presented by these effects, by removal from service of batches of LP compressor blades. However, some causal factors still exist that are not fully understood.
>
> This condition, if not detected and corrected, could lead to LP compressor blade release with possible consequent loss of the engine nose cowl, under cowl fires and forward projection of secondary debris, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

RR has issued Non-Modification Service Bulletin (NMSB) RB.211–72–G702, dated May 23, 2011. The actions described in this service information were issued to understand the condition of a sample of operator blades in advance of the introduction of regularly scheduled ultrasonic C-scan shop visit inspections. RR subsequently issued NMSB RB.211–72–G872, Revision 1, dated July 2, 2012. The actions described in this service information are intended to prevent LP compressor blade airfoil release events by conducting in-service ultrasonic C-scan inspections.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by EASA, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of

the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require a one-time ultrasonic C-scan inspection of LP compressor blades that had accumulated more than 2,500 flight cycles since new.

Costs of Compliance

We estimate that this proposed AD would affect 56 engines installed on airplanes of U.S. registry. We also estimate that it would take about 38 hours per engine to comply with this proposed AD. The average labor rate is $85 per hour. Required parts cost is $0 per engine. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be $180,880.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. ''Subtitle VII: Aviation Programs,'' describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in ''Subtitle VII, Part A, Subpart III, Section 44701: General requirements.'' Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a ''significant regulatory action'' under Executive Order 12866;

2. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new AD:

Rolls-Royce plc: Docket No. FAA–2012–1327; Directorate Identifier 2012–NE–47–AD.

(a) Comments Due Date

We must receive comments by April 1, 2013.

(b) Affected Airworthiness Directives (ADs)

None.

(c) Applicability

This AD applies to all Rolls-Royce plc (RR) models RB211 Trent 768–60, 772–60, and 772B–60 turbofan engines.

(d) Reason

This AD was prompted by low-pressure (LP) compressor blade partial airfoil release events. We are issuing this AD to prevent LP compressor blade airfoil separations, engine damage, and damage to the airplane.

(e) Actions and Compliance

Unless already done, do the following actions.

(1) For LP compressor blades that, on the effective date of this AD, have accumulated or exceeded 2,500 flight cycles (FCs) since new, or since inspection in accordance with RR Non-Modification Service Bulletin (NMSB) RB.211–72–G702, dated May 23, 2011, or since in-shop ultrasonic inspection in accordance with the Engine Manual, replace each LP compressor blade (either on-wing or in-shop) with a blade eligible for installation, within 500 FCs after the effective date of this AD.

(2) From the effective date of this AD, do not install on an engine any LP compressor blades that have been removed as required by paragraph (e)(1) of this AD, unless the LP compressor blades have passed the ultrasonic C-scan inspection in accordance with paragraphs 3.C. through 3.F. of the Accomplishment Instructions of RR NMSB RB.211–72–G872, Revision 1, dated July 2, 2012 (or original issue dated April 3, 2012), as applicable.

(f) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(g) Related Information

(1) For more information about this AD, contact Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781–238–7754; fax: 781–238–7199; email: *Robert.Green@faa.gov.*

(2) European Aviation Safety Agency, AD 2012–0247, dated November 20, 2012, RR NMSB RB.211–72–G702, dated May 23, 2011, and RR NMSB RB.211–72–G872, dated July 2, 2012 pertain to the subject of this AD.

(3) For service information identified in this AD, contact Rolls-Royce plc, P.O. Box 31, Derby DE24 8BJ, UK; phone: 44 (0) 1332 242424; fax: 44 (0) 1332 249936.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781–238–7125.

Issued in Burlington, Massachusetts, on January 25, 2013.

Colleen M. D'Alessandro,

Assistant Manager, Engine & Propeller Directorate, Aircraft Certification Service.

[FR Doc. 2013–02077 Filed 1–30–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Part 774

[Docket No. 120326218–2180–01]

RIN 0694–AF56

Revisions to the Export Administration Regulations (EAR): Articles the President Determines No Longer Warrant Control Under the U.S. Munitions List That Are Related To Launch Vehicles, Missiles, Rockets, and Military Explosive Devices

AGENCY: Bureau of Industry and Security, Department of Commerce.

ACTION: Proposed rule.

SUMMARY: This proposed rule describes how articles the President determines no longer warrant control under the United States Munitions List (USML) Category IV would be controlled on the

Commerce Control List (CCL). These articles, which are related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, and other military explosive devices enumerated in USML Category IV, would be controlled under new Export Control Classification Numbers (ECCNs) 0A604, 0B604, 0D604, 0E604, 9A604, 9B604, 9D604, and 9E604 on the CCL. In addition, this proposed rule would amend ECCNs 0D001, 0E001, 9B115, 9B116, 9D001, 9D002, 9D003, 9D104, 9E001, 9E002, 9E101, and 9E102 to make clarifications and conforming changes based on the proposed addition of the aforementioned 0x604 and 9x604 ECCNs to the CCL and proposed amendments by the Department of State, Directorate of Defense Trade Controls, to the list of articles controlled by USML Category IV.

This is one in a planned series of proposed rules describing how various types of articles that the President determines no longer warrant control on the USML, as part of the Administration's Export Control Reform Initiative, would be controlled on the CCL in accordance with the requirements of the Export Administration Regulations (EAR).

This proposed rule is being published in conjunction with a proposed rule from the Department of State, Directorate of Defense Trade Controls, which would amend the list of articles controlled by USML Category IV. The citations, herein, to USML Category IV reflect the proposed amendments contained in the State Department's rule. The revisions proposed in this rule are part of Commerce's retrospective review plan under EO 13563 completed in August 2011. Commerce's full plan can be accessed at: *http://open.commerce.gov/news/2011/08/23/commerce-plan-restrospective-analysis-existing-rules.*

DATES: Comments must be received by March 18, 2013.

ADDRESSES: You may submit comments by any of the following methods:

- Federal eRulemaking Portal: *http://www.regulations.gov.* The identification number for this rulemaking is BIS–2013–0003.
- By email directly to *publiccomments@bis.doc.gov.* Include RIN 0694–AF56 in the subject line.
- By mail or delivery to Regulatory Policy Division, Bureau of Industry and Security, U.S. Department of Commerce, Room 2099B, 14th Street and Pennsylvania Avenue NW., Washington, DC 20230. Refer to RIN 0694–AF56.

FOR FURTHER INFORMATION CONTACT: Dennis Krepp, Nuclear and Missile Technology Controls Division, Office of Nonproliferation and Treaty Compliance, Bureau of Industry and Security, U.S. Department of Commerce, Telephone: (202) 482–1309, Email: *Dennis.Krepp@bis.doc.gov.*

SUPPLEMENTARY INFORMATION:

Background

On July 15, 2011, as part of the Administration's ongoing Export Control Reform Initiative, the Bureau of Industry and Security (BIS) published a proposed rule (76 FR 41958) (hereinafter the ''July 15 (framework) rule'') that set forth a framework for how articles that the President determines, in accordance with section 38(f) of the Arms Export Control Act (AECA) (22 U.S.C. 2778(f)), would no longer warrant control on the United States Munitions List (USML), would be controlled on the Commerce Control List (CCL) in Supplement No. 1 to Part 774 of the Export Administration Regulations (EAR). On November 7, 2011, BIS published a rule (76 FR 68675) (hereinafter the ''November 7 (aircraft) rule'') proposing several changes to the framework initially proposed in the July 15 (framework) rule. On June 19, 2012, BIS published a rule (77 FR 36409) (hereinafter the ''June 19 (specially designed) rule'') proposing revisions to the definition of ''specially designed'' in order to provide, to the extent possible, a common definition of the term for use in both the EAR (e.g., in the CCL) and the International Traffic in Arms Regulations (ITAR). Most recently, on June 21, 2012, BIS published a rule (77 FR 37524) (hereinafter the ''June 21 (transition) rule'') proposing how the EAR would be amended to address the transition of control over items the President determines no longer warrant control on the USML.

Following the structure of the July 15 (framework) rule and the November 7 (aircraft) rule, this proposed rule describes BIS's proposal for controlling under the EAR and its CCL some articles related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, other military explosive devices, and related articles, which currently are controlled under USML Category IV in the ITAR. The changes proposed in this rule and the State Department's companion rule to Category IV of the USML are based on a review of this USML Category by the Defense Department, which worked with the Departments of State and Commerce in preparing the proposed amendments. The review focused on identifying the types of articles that are now controlled by USML Category IV that are either: (i) Inherently military and otherwise warrant control on the USML or (ii) of a type common to non-military applications, possessing parameters or characteristics that provide a critical military or intelligence advantage to the United States, and almost exclusively available from the United States. If an article satisfies either or both of these criteria, the article remains on the USML. If an article does not satisfy either criterion, but is nonetheless a type of article that is, as a result of differences in form and fit, ''specially designed'' for military applications, then it is identified in one of the new ECCNs proposed in this rule. The license requirements and other EAR-specific controls for such items, as described in this proposed rule, would, when considered in the context of the other proposed amendments to the USML and the CCL, enhance national security by: (i) Improving U.S. military interoperability with allied countries; (ii) strengthening the U.S. industrial base by, among other things, reducing incentives for foreign companies to design out and avoid U.S.-origin content and services; and (iii) allowing U.S. export control officials to focus government resources on transactions of more concern.

Pursuant to section 38(f) of the AECA, the President shall review the USML ''to determine what items, if any, no longer warrant export controls under'' the AECA. The President must report the results of the review to Congress and wait 30 days before removing any such items from the USML. The report must ''describe the nature of any controls to be imposed on that item under any other provision of law.'' 22 U.S.C. 2778(f)(1).

In the July 15 (framework) rule, BIS proposed creating a series of new ECCNs to control articles that would be moved from the USML to the CCL or items listed on the Wassenaar Arrangement Munitions List (WAML) that are already controlled elsewhere on the CCL. The proposed rule referred to this series as the ''600 series'' because the third character in each of the new ECCNs would be a ''6.'' The first two characters of the ''600 series'' ECCNs serve the same function as described for any other ECCN in § 738.2 of the EAR. The first character is a digit in the range 0 through 9 that identifies the Category on the CCL in which the ECCN is located. The second character is a letter in the range A through E that identifies the product group within a CCL Category. In the ''600 series,'' the third character is the number 6. With few exceptions, the final two characters identify the WAML Category that covers

items that are the same or similar to items in a particular ''600 series'' ECCN.

In accordance with the format described above, this proposed rule would create four new ''600 series'' ECCNs in CCL Category 0 and four new ''600 series'' ECCNs in CCL Category 9. In addition, this proposed rule would amend ECCNs 0D001, 0E001, 9B115, 9B116, 9D001, 9D002, 9D003, 9D104, 9E001, 9E002, 9E101, and 9E102 to make clarifications and conforming changes based on the proposed addition of the new 0x604 and 9x604 ECCNs to the CCL and proposed amendments by the State Department to the list of articles controlled by USML Category IV.

BIS will publish additional **Federal Register** notices containing proposed amendments to the CCL that will describe proposed controls for additional categories of articles the President determines no longer warrant control under the USML. The State Department will publish, concurrently, proposed amendments to the USML that correspond to the BIS notices. BIS will also publish proposed rules to further align the CCL with the WAML and the Missile Technology Control Regime Equipment, Software and Technology Annex.

All references to the USML in this rule are to the list of defense articles that are controlled for purposes of export, temporary import, or brokering pursuant to the ITAR, and not to the list of defense articles on the United States Munitions Import List (USMIL) that are controlled by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) for purposes of permanent import under its regulations at 27 CFR part 447. Pursuant to section 38(a)(1) of the AECA, all defense articles controlled for export or import, or that are subject to brokering controls, are part of the ''USML'' under the AECA. For the sake of clarity, references to the USMIL are to the list of defense articles controlled by ATF for purposes of permanent import. All defense articles described in the USMIL or the USML are subject to the brokering controls administered by the U.S. Department of State in part 129 of the ITAR. The transfer of defense articles from the ITAR's USML to the EAR's CCL, for purposes of export controls, does not affect the list of defense articles that are controlled on the USMIL under the AECA for purposes of permanent import or brokering controls.

The revisions proposed in this rule are part of Commerce's retrospective plan under EO 13563 completed in August 2011. Commerce's full plan can be accessed at: *http://open.commerce.gov/news/2011/08/23/commerce-plan-retrospective-analysis-existing-rules.*

Detailed Description of Changes Proposed by This Rule

This proposed rule would create four new ''600 series'' ECCNs in CCL Category 0 (ECCNs 0A604, 0B604, 0D604, and 0E604) and four new ''600 series'' ECCNs in CCL Category 9 (ECCNs 9A604, 9B604, 9D604, and 9E604) that would clarify the EAR controls that apply to certain items the President determines no longer warrant control under the USML that are related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, and other military explosive devices in USML Category IV. Terms such as ''part'' and ''component'' and ''accessories'' and ''attachments'' are applied in the same manner in this rule as those terms were defined or modified in the July 15 (framework) rule and the June 19 (specially designed) rule, respectively.

New ECCN 0A604: Commodities Related to Military Explosive Devices and Charges

In new ECCN 0A604, paragraph .a would control demolition blocks and detonators designed, modified, or adapted therefor. Paragraph .b of ECCN 0A604 would control military explosive excavating devices. A note to 0A604.a and .b would indicate that this new ECCN would not control the detonators and other items described in ECCN 1A007 or ECCN 3A232. Paragraph .c of ECCN 0A604 would control smoke hand grenades and stun hand grenades (e.g., ''flashbangs'') not described in ECCN 1A984. Paragraphs .d through .w of ECCN 0A604 would be reserved for possible future use. Paragraph .x of ECCN 0A604 would control ''parts,'' ''components,'' ''accessories,'' and ''attachments'' that are ''specially designed'' for a commodity in paragraphs .a through .c of ECCN 0A604, or a defense article in USML Category IV, and not specified elsewhere on the CCL or the USML. Two notes to paragraph .x would indicate that: (1) Forgings, castings, and other unfinished products are controlled by paragraph .x if they have reached a stage in manufacturing where they are clearly identifiable, by material composition, geometry, or function, as commodities specified in paragraph .x; and (2) ''parts,'' ''components,'' ''accessories,'' and ''attachments'' specified in USML Category IV(h) are subject to the controls of that paragraph.

New ECCN 0B604: Test, Inspection, and Production ''Equipment'' and Related Commodities ''Specially Designed'' for Commodities in ECCN 0A604 or Related Defense Articles in USML Category IV

In new ECCN 0B604, paragraph .a would control test, inspection, and other production ''equipment'' that is ''specially designed'' for the ''production'' or ''development'' of commodities in ECCN 0A604, or related defense articles controlled under USML Category IV, and not specified elsewhere on the CCL or the USML. Paragraphs .b through .w would be reserved for possible future use. Paragraph .x of ECCN 0B604 would control ''parts,'' ''components,'' ''accessories,'' and attachments'' that are ''specially designed'' for a commodity subject to control in paragraph .a of ECCN 0B604.

New ECCN 0D604: ''Software'' ''Specially Designed'' for Commodities Controlled by ECCN 0A604 or 0B604

ECCN 0D604.a would control ''software'' ''specially designed'' for the ''development,'' ''production,'' operation or maintenance of commodities controlled by ECCN 0A604 or ECCN 0B604. Paragraph .b of ECCN 0D604 would be reserved for future use.

New ECCN 0E604: ''Technology'' ''Required'' for Items Controlled by ECCN 0A604, 0B604, or 0D604

ECCN 0E604.a would control ''technology'' ''required'' for the ''development,'' ''production,'' operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 0A604 or 0B604, or ''software'' controlled by ECCN 0D604. Paragraph .b of ECCN 0E604 would be reserved for future use.

New ECCN 9A604: Commodities Related to Launch Vehicles, Missiles, Rockets, Torpedoes, Bombs, and Mines

In new ECCN 9A604, paragraph .a would control thermal batteries ''specially designed'' for the systems described in USML Category IV that are capable of a range equal to or greater than 300 km. Paragraph .b of ECCN 9A604 would control thermal batteries, except for thermal batteries controlled by ECCN 9A604.a, that are ''specially designed'' for the systems described in USML Category IV. Paragraph .c of ECCN 9A604 would control ''components'' ''specially designed'' for ramjet, scramjet, pulse jet, or combined cycle engines described in USML Category IV, including devices to regulate combustion in such commodities. Paragraph .d of ECCN 9A604 would control components

''specially designed'' for hybrid rocket motors described in USML Category IV that are usable in rockets, missiles, or unmanned aerial vehicles capable of a range equal to or greater than 300 km. Paragraph .e of ECCN 9A604 would control ''components'' ''specially designed'' for pressure gain combustion-based propulsion systems controlled under USML Category IV. Paragraphs .f through .w of ECCN 9A604 would be reserved for possible future use. Paragraph .x of ECCN 9A604 would control ''parts,'' ''components,'' ''accessories,'' and ''attachments'' that are ''specially designed'' for a commodity in paragraphs .a through .d of ECCN 9A604, or a defense article in USML Category IV, and not specified elsewhere on the CCL or the USML. Two notes to paragraph .x would indicate that: (1) forgings, castings, and other unfinished products are controlled by paragraph .x if they have reached a stage in manufacturing where they are clearly identifiable, by material composition, geometry, or function, as commodities specified in paragraph .x; and (2) ''parts,'' ''components,'' ''accessories,'' and ''attachments'' specified in USML Category IV(h) are subject to the controls of that paragraph.

New ECCN 9B604: Test, Inspection, and Production ''Equipment'' and Related Commodities ''Specially Designed'' for the ''Development'' or ''Production'' of Commodities in ECCN 9A604 or Related Defense Articles in USML Category IV

In new ECCN 9B604, paragraph .a would control ''production facilities'' ''specially designed'' for items that are controlled by USML Category IV(a)(1) or (a)(2). Paragraph .b of ECCN 9B604 would control test, calibration, and alignment equipment ''specially designed'' for items that are controlled by USML Category IV(h)(28). Paragraph .c of ECCN 9B604 would control test, inspection, and other production ''equipment'' that is ''specially designed'' for the ''production'' or ''development'' of commodities described in ECCN 9A604, or related defense articles enumerated in USML Category IV, and not specified elsewhere on the CCL or the USML. Paragraph .d of ECCN 9B604 would control ''specially designed'' ''production facilities'' or production ''equipment'' for systems, sub-systems, and ''components'' controlled by USML Category IV(d)(1), (d)(7), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), (h)(26), or (h)(28). Paragraphs .e through .w would be reserved for possible future use. Paragraph .x of ECCN 9B604 would control ''parts,'' ''components,'' ''accessories,'' and ''attachments'' ''specially designed'' for a commodity subject to control in paragraph .a or .b of ECCN 9B604.

New ECCN 9D604: ''Software'' ''Specially Designed'' for Commodities Controlled by ECCN 9A604 or 9B604

ECCN 9D604.a would control ''software'' ''specially designed'' for the ''development,'' ''production,'' operation or maintenance of commodities controlled by ECCN 9A604 or ECCN 9B604. Paragraph .b of ECCN 9D604 would be reserved for future use.

New ECCN 9E604: ''Technology'' ''Required'' for Commodities Controlled by ECCN 9A604 or 9B604, or ''Software'' Controlled by ECCN 9D604

ECCN 9E604.a would control ''technology'' ''required'' for the ''development,'' ''production,'' operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or ''software'' controlled by ECCN 9A604, 9B604, or 9D604. Paragraph .b of ECCN 9E604 would be reserved for future use.

Applicable Controls for New ''600 Series'' ECCNs

All items in the 0x604 and 9x604 ECCNs, as proposed in this rule, would be subject to national security (NS Column 1) and regional stability (RS Column 1) controls, as well as antiterrorism (AT Column 1) controls.

In addition, missile technology (MT Column 1) controls would apply to items described in: ECCN 9A604.a, .c, or .d; ECCN 9B604.a or .b or 9B604.d (for ''specially designed'' ''production facilities'' or production ''equipment'' for defense articles identified as MTCR Annex items in USML Category IV(d)(1), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), or (h)(26)); ''software'' described in ECCN 9D604.a for commodities controlled for MT reasons in ECCN 9A604 or 9B604; and ''technology'' described in ECCN 9E604.a for commodities and ''software'' controlled for MT reasons in ECCNs 9A604, 9B604, or 9D604.

Conforming Amendments to ECCNs 0D001, 0E001, 9B115, 9B116, 9D001, 9D002, 9D003, 9D104, 9E001, 9E002, 9E101, and 9E102

This proposed rule would amend ECCNs 0D001, 0E001, 9B115, 9B116, 9D001, 9D002, 9D003, 9D104, 9E001, 9E002, 9E101, and 9E102 to make clarifications and conforming changes based on both the addition of new ''600 series'' ECCNs to CCL Categories 0 and 9, as proposed in this rule, and the amendments to the list of defense articles controlled by USML Category IV that are contained in a proposed rule from the Department of State, Directorate of Defense Trade Controls (DDTC), which is being published in conjunction with this proposed rule from BIS.

First, this proposed rule would amend the headings of ECCNs 0D001 and 0E001 to exclude ''software'' and ''technology'' for items in proposed new ECCN 0B604 from control under ECCNs 0D001 and 0E001, because such ''software'' and ''technology'' would be controlled under proposed new ECCNs 0D604 and 0E604, respectively. In addition, the headings of ECCNs 9D001, 9D002, 9D003, 9E001, and 9E002 would be amended to exclude ''software'' and ''technology'' for items in proposed new ECCN 9B604 from control under these ECCNs, because such ''software'' and ''technology'' would be controlled under proposed new ECCNs 9D604 and 9E604, respectively. Furthermore, ECCNs 0B601, 0B602, 0B603, 0B606, 0B614, 0B617, 0C617, and 9B610, which have already been published in proposed form by BIS as part of the Administration's Export Control Reform Initiative, also would be excluded from the respective CCL Category 0 and 9 ''software'' and ''technology'' ECCNs indicated above.

Second, this proposed rule would amend ECCNs 9D001, 9D002, 9D003, 9D104, 9E001, 9E002, 9E101, and 9E102 by removing from the headings of these ECCNs all references to the CCL Category 9 placeholder ECCNs that describe only items subject to the export licensing jurisdiction of DDTC. Furthermore, this proposed rule would amend the Related Controls paragraphs of the ECCNs indicated above to identify the items described in the placeholder ECCNs as subject to the export licensing jurisdiction of DDTC.

Third, this proposed rule would amend ECCNs 9B115 and 9B116 by removing from the headings of these ECCNs all references to the CCL Category 9 placeholder ECCNs that describe only items subject to the export licensing authority of DDTC. These placeholder references would be replaced with references to the appropriate USML Category IV controls described in the State Department's USML Category IV proposed rule, which is being published in conjunction with this BIS proposed rule. Specific USML categories would be referenced in the headings of ECCNs 9B115 and 9B116, because these ECCNs control ''specially designed'' ''production equipment'' and ''specially designed'' ''production facilities,'' respectively, for certain USML Category IV defense articles, as

well as certain CCL Category 9 commodities.

These proposed conforming changes and clarifications also would eliminate perceived discrepancies in the current text of certain CCL Category 9 ''software'' and ''technology'' ECCNs. For example, the heading of ECCN 9E102 currently includes ''technology'' for the ''use'' of space launch vehicles described in ECCN 9A004, while the Related Controls paragraph of ECCN 9E102 indicates that such ''technology'' would be subject to the export licensing jurisdiction of DDTC. This proposed rule would amend the heading of ECCN 9E102 to include ''technology'' for commodities described in ECCN 9A004 (except for items that are subject to the ITAR, see 22 CFR part 121) and also amend the Related Controls paragraph in ECCN 9E102 to indicate that ''technology'' for ECCN 9A004 (except for items that are subject to the EAR) is subject to the export licensing jurisdiction of DDTC.

This proposed rule also would correct an error in the heading of ECCN 9E101, which currently indicates that this ECCN controls ''development,'' ''production,'' and ''use'' ''technology. In fact, such ''use'' ''technology'' is controlled under ECCN 9E102. Therefore, this proposed rule would amend the heading of ECCN 9E101 to remove the reference to ''use'' ''technology.'' Furthermore, this proposed rule would amend the MT controls paragraphs in ECCNs 9E001 and 9E002 to indicate that, in addition to the items already identified in these paragraphs, MT controls apply to ''technology'' for equipment controlled by 9B115. However, the MT controls paragraph in 9E002 would no longer reference 9B117, because ''production'' ''technology'' for 9B117 would not be controlled under ECCN 9E002, as indicated in the ECCN heading.

Effects of This proposed rule

BIS believes that the principal effect of this rule, when considered in the context of the other similar proposed rules being published as part of the Export Control Reform Initiative, will be to provide greater flexibility for exports and reexports to NATO member countries and other multiple-regime-member countries of items the President determines no longer warrant control on the USML. This greater flexibility would be in the form of: Application of the EAR's *de minimis* threshold principle for items constituting less than a *de minimis* amount of controlled U.S.-origin content in foreign made items; availability of license exceptions, particularly License Exceptions ''Servicing and Replacement of Parts and Equipment'' (RPL) and ''Strategic Trade Authorization'' (STA); elimination of the requirements for manufacturing license agreements and technical assistance agreements in connection with exports of technology; and a reduction in, or elimination of, exporter and manufacturer registration requirements and associated registration fees. Some of these specific effects are discussed in more detail below.

De Minimis

The June 21 (transition) rule would impose certain unique *de minimis* requirements on items controlled under the new ''600 series'' ECCNs. These requirements reflect, in part, further interagency deliberation, as well as a review of the comments that BIS received on the *de minimis* requirements in the July 15 (framework) rule. Section 734.3 of the EAR provides, *inter alia,* that, under certain conditions, items made outside the United States that incorporate items subject to the EAR are not subject to the EAR if they do not exceed a ''*de minimis''* percentage of controlled U.S. origin content. Section 734.4 of the EAR indicates that the *de minimis* percentage may be either 10 percent or 25 percent, based on the destination. If the June 21 (transition) rule's proposal to amend Section 734.4 of the EAR is adopted, the new ECCNs 0A604, 0B604, 0D604, 0E604, 9A604, 9B604, 9D604, and 9E604 proposed in this rule would be subject to the *de minimis* provisions set forth in the June 21 (transition) rule. Under the proposed amendment to Section 734.4 of the EAR, there would be no eligibility for *de minimis* treatment for a foreign-made item that incorporates U.S.-origin ''600 series'' items when the foreign-made item is destined for a country subject to a U.S. arms embargo (i.e., Afghanistan, Belarus, Burma, China, Cote d'Ivoire, Cuba, Cyprus, Democratic Republic of Congo, Eritrea, Fiji, Haiti, Iraq, Iran, Lebanon, Liberia, Libya, North Korea, Somalia, Sri Lanka, Sudan, Syria, Venezuela, Vietnam, and Zimbabwe). This list of countries differs from the one contained in the June 21 (transition) rule in that Yemen would not be included, consistent with the State Department's July 3, 2012, amendment to Section 126.1 of the ITAR (see 77 FR 39392). For destinations that are not subject to a U.S. arms embargo, a foreign-made item that incorporates U.S.-origin ''600 series'' items would be eligible for *de minimis* treatment at the 25 percent level (i.e., when the value of its U.S.-origin controlled content does not exceed 25 percent of foreign-made item's value). In contrast, the AECA does not permit the ITAR to have a *de minimis* treatment for USML-listed items, regardless of the significance or insignificance of the U.S.-origin content or the percentage of U.S.-origin content in the foreign-made item (i.e., USML-listed items remain subject to the ITAR when they are incorporated abroad into a foreign-made item, regardless of either of these factors).

Use of License Exceptions

The July 15 (framework) rule and the June 21 (transition) rule would impose certain restrictions on the use of license exceptions for items that would be controlled under the new ''600 series'' ECCNs on the CCL. For example, proposed § 740.2(a)(12) would make ''600 series'' items that are destined for a country subject to a United States arms embargo ineligible for shipment under a license exception, except where authorized by License Exception TMP under § 740.9(a)(12) or License Exception BAG under § 740.14(b)(2), for exports to Afghanistan and Iraq, and by License Exception GOV under § 740.11(b)(2)(ii). In addition, the use of License Exception GOV for ''600 series'' commodities would be limited to situations in which the United States Government is the consignee and end-user or to situations in which the consignee or end-user is the government of a country listed in § 740.20(c)(1).

This rule proposes limited License Exception STA availability for the proposed new 0x604 and 9x604 ECCNs. None of these new ECCNs would be eligible for the STA ''controls of lesser sensitivity'' described in § 740.20(c)(2) of the EAR. Instead, STA eligibility for items controlled under proposed new ECCN 0A604, 0B604, 0D604, 0E604, 9A604, 9B604, 9D604, or 9E604 would be limited to the destinations listed in § 740.20(c)(1) of the EAR. In addition, License Exception STA would not be available for items controlled for MT reasons under proposed new ECCN 9A604, 9B604, 9D604, or 9E604.

Consistent with the July 15 (framework) rule: (i) The use of License Exception STA for ''end items'' in ''600 series'' ECCNs would be limited to those ''end items'' for which a specific request for License Exception STA eligibility (filed in conjunction with a license application) has been approved; and (ii) ''end items'' must be for ultimate end use by a foreign government agency of a type specified in the July 15 (framework) rule. Under this proposed rule, otherwise eligible commodities controlled under proposed ECCN 0A604, 0B604, 9A604, or 9B604 would not be subject to the STA eligibility

request and determination requirements described in § 740.20(g) of the EAR that apply to ''end items'' controlled under ''600 series'' ECCNs.

Furthermore, the July 15 (framework) rule would limit exports of ''600 series'' ''parts,'' ''components,'' ''accessories,'' and ''attachments'' under License Exception STA for ultimate end use by the same set of end users.

Items controlled under proposed ECCN 0B604 or 9B604 (except for 9B604.a, .b, or .d items, controlled for MT reasons) also would be eligible for License Exception LVS (limited value shipments) up to a value of $1,500, TMP (temporary exports), and RPL (servicing and replacement parts). License Exceptions TMP and RPL also would be available for items controlled under new ECCN 0A604 or 9A604 (except for 9A604.a, .c, or .d items, which are controlled for MT reasons and excluded from license exception eligibility).

BIS believes that, even with the restrictions proposed by the July 15 (framework) rule, the November 7 (aircraft) rule, and the June 21 (transition) rule on the use of license exceptions for ''600 series'' items, the restrictions on those items currently on the USML would be reduced, particularly with respect to exports to NATO members and multiple-regime member countries, if those items are moved from the USML to proposed ECCN 0A604, 0B604, 0D604, 0E604, 9A604, 9B604, 9D604, or 9E604.

Alignment With the Wassenaar Arrangement Munitions List

Since the beginning of the Export Control Reform Initiative, the Administration has stated that the reforms will be consistent with the United States' obligations to the multilateral export control regimes. Accordingly, the Administration will, in this and subsequent proposed rules, exercise its national discretion to implement, clarify, and, to the extent feasible, align its controls with those of the regimes. In this rule, proposed ECCNs 0A604 and 9A604 would implement, to the extent possible, the controls in WAML Category 4 for commodities related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, and other military explosive devices and charges, and related equipment and accessories, and specially designed components therefor; proposed ECCNs 0B604 and 9B604 would implement, to the extent possible, the controls in WAML Category 18 for related production equipment; proposed ECCNs 0D604 and 9D604 would implement, to the extent possible, the controls in WAML Category 21 for related software; and proposed ECCNs 0E604 and 9E604 would implement, to the extent possible, the controls in WAML Category 22 for related technology.

Other Effects

Pursuant to the framework identified in the July 15 (framework) rule, commodities in ECCN 0A604 or 9A604 related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, and other military explosive devices and charges; related test, inspection and production equipment classified under ECCN 0B604 or 9B604; related ''software'' classified under ECCN 0D604 or 9D604; and related ''technology'' classified under ECCN 0E604 or 9E604 would be subject to the licensing policies that apply to items controlled for NS reasons, as described in § 742.4(b)(1)—specifically, NS Column 1 controls. In addition, these same items would be subject to the regional stability licensing policies set forth in § 742.6(a)(1)—specifically, RS Column 1. Furthermore, items described in ECCN 9A604.a, .c, or .d; related test, inspection and production equipment described in ECCN 9B604.a; ''software'' described in ECCN 9D604.a, for commodities controlled for MT reasons in ECCN 9A604 or 9B604; and ''technology'' described in ECCN 9E604.a, for commodities and ''software'' controlled for MT reasons in ECCNs 9A604, 9B604, or 9D604, would be subject to the missile technology licensing policies set forth in § 742.5(a)(1)—specifically, MT Column 1 controls.

The July 15 (framework) rule would amend § 742.4 to apply a general policy of denial to ''600 series'' items for destinations that are subject to a United States arms embargo. That policy would apply to all items controlled for NS reasons under this proposed rule. The November 7 (aircraft) rule would expand that general policy of denial to include ''600 series'' items subject to the licensing policies that apply to items controlled for regional stability reasons, as described in § 742.6(b)(1)—specifically, RS Column 1. While this change might seem redundant for the items affected by this proposed rule, it ensures that a general denial policy would apply to any ''600 series'' items that are controlled for MT and RS reasons, but not for NS reasons (as would be the case for certain items affected by the November 7 (aircraft) rule).

Request for Comments

BIS seeks comments on this proposed rule. BIS will consider all comments received on or before March 18, 2013. All comments (including any personally identifying information or information for which a claim of confidentially is asserted either in those comments or their transmittal emails) will be made available for public inspection and copying. Parties who wish to comment anonymously may do so by submitting their comments via Regulations.gov, leaving the fields that would identify the commenter blank and including no identifying information in the comment itself.

Although the Export Administration Act expired on August 20, 2001, the President, through Executive Order 13222 of August 17, 2001, 3 CFR, 2001 Comp., p. 783 (2002), as extended by the Notice of August 15, 2012, 77 FR 49699 (August 16, 2012), has continued the Export Administration Regulations in effect under the International Emergency Economic Powers Act. BIS continues to carry out the provisions of the Export Administration Act, as appropriate and to the extent permitted by law, pursuant to Executive Order 13222.

Rulemaking Requirements

1. Executive Orders 13563 and 12866 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distribute impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This rule has been designated a ''significant regulatory action,'' although not economically significant, under section 3(f) of Executive Order 12866. Accordingly, the rule has been reviewed by the Office of Management and Budget (OMB).

2. Notwithstanding any other provision of law, no person is required to respond to, nor is subject to a penalty for failure to comply with, a collection of information, subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (PRA), unless that collection of information displays a currently valid OMB control number. This proposed rule would affect two approved collections: Simplified Network Application Processing System (control number 0694–0088), which includes, among other things, license applications, and License Exceptions and Exclusions (0694–0137).

As stated in the July 15 (framework) rule (76 FR 41958), BIS believes that the combined effect of all rules to be published adding items to the EAR that would be removed from the ITAR, as part of the Administration's Export Control Reform Initiative, would increase the number of license applications to be submitted by approximately 16,000 annually, resulting in an increase in burden hours of 5,067 (16,000 transactions at 17 minutes each) under control number 0694–0088.

Some items formerly on the USML would become eligible for License Exception STA under this rule. Items controlled under proposed ECCN 0A604, 0B604, 0D604, or 0E604, and items controlled under proposed ECCN 9A604, 9B604, 9D604, or 9E604 that are not controlled for MT reasons, would be eligible for certain parts of STA. In addition, eligible commodities controlled under proposed ECCN 0A604, 0B604, 9A604, or 9B604 would not be subject to the STA eligibility request requirements described in § 740.20(g) of the EAR. As stated in the July 15 (framework) rule, BIS believes that the increased use of License Exception STA, resulting from the combined effect of all rules to be published adding items to the EAR that would be removed from the ITAR as part of the administration's Export Control Reform Initiative, would increase the burden associated with control number 0694–0137 by about 23,858 hours (20,450 transactions at 1 hour and 10 minutes each). Use of License Exception STA imposes a paperwork and compliance burden because, for example, exporters must furnish information about the item being exported to the consignee and obtain from the consignee an acknowledgement and commitment to comply with the EAR. It is, however, the Administration's understanding that complying with the requirements of STA is likely to be less burdensome than applying for licenses. For example, under License Exception STA, a single consignee statement can apply to an unlimited number of products, need not have an expiration date and need not be submitted to the government in advance for approval. Suppliers with regular customers can tailor a single statement and assurance to match their business relationship rather than applying repeatedly for licenses with every purchase order to supply allied and, in some cases, U.S. forces with routine replacement parts and components.

BIS expects that this increase in burden would be more than offset by a reduction in burden hours associated with approved collections related to the ITAR. This proposed rule addresses controls on items related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, and other military explosive devices, including related parts, components, production equipment, software, and technology. The reduction in burden hours would particularly impact exporters of parts and components that would no longer be subject to the ITAR. By contrast, most U.S. and foreign end items that are related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, and other military explosive devices would continue to be subject to the ITAR. With few exceptions, the ITAR currently exempts from license requirements only exports to Canada, and, as a result, most exports to integrators of U.S. Government equipment and most exports of routine maintenance parts and components for NATO and other close allies require State Department authorization. In addition, the exports necessary to produce parts and components for defense articles in the inventories of the United States and its NATO and other close allies require State Department authorizations. Under the EAR, as proposed, a small number of low-level parts would not require a license to most destinations. Most other parts, components, accessories, and attachments would become eligible for export to NATO and other close allies under License Exception STA.

Even in situations in which a license would be required under the EAR, the burden likely will be reduced compared to the license requirement of the ITAR. In particular, license applications for exports of technology controlled by ECCN 0E604 or 9E604 are likely to be less complex and burdensome than the authorizations required to export ITAR-controlled technology, i.e., Manufacturing License Agreements and Technical Assistance Agreements.

3. This rule does not contain policies with Federalism implications as that term is defined under E.O. 13132.

4. The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.,* generally requires an agency to prepare an initial regulatory flexibility analysis (IRFA) for any rule subject to the notice and comment rulemaking requirements under the Administrative Procedure Act (5 U.S.C. 553) or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Under section 605(b) of the RFA, however, if the head of an agency certifies that a rule will not have a significant impact on a substantial number of small entities, the RFA does not require the agency to prepare a regulatory flexibility analysis. Pursuant to section 605(b), the Chief Counsel for Regulation, Department of Commerce, certified to the Chief Counsel for Advocacy, Small Business Administration that this proposed rule, if promulgated, will not have a significant impact on a substantial number of small entities.

Number of Small Entities

BIS does not collect data on the size of entities that apply for and are issued export licenses. Although BIS is unable to estimate the exact number of small entities that would be affected by this rule, it acknowledges that this rule would affect some unknown number.

Economic Impact

This proposed rule is part of the Administration's Export Control Reform Initiative. Under that initiative, the United States Munitions List (22 CFR part 121) (USML) will be revised to be a ''positive'' list, *i.e.,* a list that does not use generic, catch-all controls on any part, component, accessory, attachment, or end item that was in any way specifically modified for a defense article, regardless of the article's military or intelligence significance or non-military applications. At the same time, articles that are determined to no longer warrant control on the USML will become controlled on the Commerce Control List (CCL). Such items, along with certain military items that currently are on the CCL, will be identified in specific Export Control Classification Numbers (ECCNs) known as the ''600 series'' ECCNs. In addition, some items currently on the CCL will move from existing ECCNs to the new ''600 series'' ECCNs.

This rule addresses certain equipment, and ''software'' and ''technology'' therefor, that are related to launch vehicles, missiles, rockets, torpedoes, bombs, mines, and other military explosive devices currently enumerated in USML Category IV (Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs, and Mines). Most of this equipment would remain on the USML. However, parts and components for such equipment, which are more likely to be produced by small businesses than are complete systems, would in many cases become subject to the EAR, unless expressly controlled on the USML (e.g., items enumerated in ECCN 0A604.x or 9A604.x). In addition, officials of the Department of State have informed BIS

that license applications for such parts and components are a high percentage of the license applications for USML articles reviewed by that department. Changing the jurisdictional status of certain Category IV items would reduce the burden on small entities (and other entities as well) through: (i) Elimination of some license requirements; (ii) greater availability of license exceptions; (iii) simpler license application procedures; and (iv) reduced (or eliminated) registration fees.

Moreover, parts and components that are controlled under the ITAR remain under ITAR control when incorporated into foreign-made items, regardless of the significance or insignificance of the item. This discourages foreign buyers from incorporating such U.S. content. The availability of *de minimis* treatment under the EAR, for those items that would no longer be controlled under the ITAR, may reduce the disincentive for foreign manufacturers to purchase U.S.-origin parts and components.

Many exports and reexports of the Category IV articles that would be placed on the CCL by this rule, particularly parts and components, would become eligible for license exceptions that apply to shipments to U.S. Government agencies, parts and components being exported for use as replacement parts, temporary exports, limited value exports, and License Exception Strategic Trade Authorization (STA), reducing the number of licenses that exporters of these items would need. License exceptions under the EAR would allow suppliers to send routine replacement parts and low- level parts to NATO and other close allies and export control regime partners for use by those governments and for use by contractors building equipment for those governments or for the U.S. Government without having to obtain export licenses. Under License Exception STA, the exporter would need to furnish information about the item being exported to the consignee and obtain a statement from the consignee that, among other things, would commit the consignee to comply with the EAR and other applicable U.S. laws. Because such statements and obligations can apply to an unlimited number of transactions and have no expiration date, they would create a net reduction in burden on transactions that the government routinely approves through the license application process that the License Exception STA statements would replace.

Even for exports and reexports for which a license would be required, the process would be simpler and less costly under the EAR. When a USML Category IV article is moved to the CCL, the number of destinations for which a license is required would remain unchanged. However, the burden on the license applicant would decrease because the licensing procedure for CCL items is simpler and more flexible that the license procedure for USML articles.

Under the USML licensing procedure, an applicant must include a purchase order or contract with its application. There is no such requirement under the CCL licensing procedure. This difference gives the CCL applicant at least two advantages. First, the applicant has a way to determine whether the U.S. government will authorize the transaction before it enters into potentially lengthy, complex and expensive sales presentations or contract negotiations. Under the USML procedure, the applicant must caveat all sales presentations with a reference to the need for government approval, and is more likely to engage in substantial effort and expense only to find that the government will reject the application. Second, a CCL license applicant need not limit its application to the quantity or value of one purchase order or contract. It may apply for a license to cover all of its expected exports or reexports to a specified consignee over the life of a license (normally two years, but may be longer if circumstances warrant a longer period), thus reducing the total number of licenses for which the applicant must apply.

In addition, many applicants exporting or reexporting items that this rule proposes to transfer from the USML to the CCL would realize cost savings through the elimination of some or all registration fees currently assessed under the USML's licensing procedure. Currently, USML applicants must pay to use the USML licensing procedure even if they never actually are authorized to export. Registration fees for manufacturers and exporters of articles on the USML start at $2,250 per year, increase to $2,750 for organizations applying for one to ten licenses per year and further increase to $2,750 plus $250 per license application (subject to a maximum of three percent of total application value) for those who need to apply for more than ten licenses per year. Conversely, there are no registration or application processing fees for applications to export items listed on the CCL. Once the Category IV items that are the subject to this rulemaking are removed from the USML and added to the CCL, entities currently applying for licenses from the Department of State would find their registration fees reduced if the number of USML licenses those entities need declines. If an entity's entire product line is moved to the CCL, its ITAR registration and registration fee requirement would be eliminated.

De minimis treatment under the EAR would become available for all items that this rule proposes to transfer from the USML to the CCL. Items subject to the ITAR will remain subject to the ITAR when they are incorporated abroad into a foreign-made product regardless of the percentage of U.S content in that foreign-made product. However, foreign-made products incorporating items that this rule would move to the CCL would be subject to the EAR only if their total controlled U.S.-origin content exceeds 25 percent, unless the foreign-made item is destined for a country subject to a U.S. arms embargo in which case there would be no eligibility for *de minimis* treatment. Because including small amounts of U.S.-origin content would not subject foreign-made products to the EAR, foreign manufacturers would have less incentive to refrain from purchasing such U.S.-origin parts and components, a development that potentially would mean greater sales for U.S. suppliers, including small entities.

Conclusion

BIS is unable to determine the precise number of small entities that would be affected by this rule. Based on the facts and conclusions set forth above, BIS believes that any burdens imposed by this rule would be offset by a reduction in the number of items that would require a license, increased opportunities for use of license exceptions for exports to certain countries, simpler export license applications, reduced or eliminated registration fees and application of a *de minimis* threshold for foreign-made items incorporating U.S.-origin parts and components, which would reduce the incentive for foreign buyers to design out or avoid U.S.-origin content. For these reasons, the Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this rule, if adopted in final form, would not have a significant economic impact on a substantial number of small entities. Accordingly, no IRFA is required, and none has been prepared.

List of Subjects in 15 CFR Part 774

Exports, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, part 774 of the Export Administration Regulations (15 CFR

parts 730–774) are proposed to be amended as follows:

15 CFR PART 774—[AMENDED]

■ 1. The authority citation for 15 CFR part 774 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* 10 U.S.C. 7420; 10 U.S.C. 7430(e); 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.,* 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 15 U.S.C. 1824a; 50 U.S.C. app. 5; 22 U.S.C. 7201 *et seq.;* 22 U.S.C. 7210; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

■ 2. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities, and Equipment [and Miscellaneous Items], add a new ECCN 0A604 between ECCNs 0A018 and 0A918 to read as follows:

Supplement No. 1 to Part 774—the Commerce Control List

* * * * *

0A604 Commodities related to military explosive devices and charges.

License Requirements

Reason for Control: NS, RS, AT

Control(s)	*Country chart*
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1
AT applies to entire entry.	AT Column 1

License Exceptions

LVS: N/A
GBS: N/A
CIV: N/A
STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 0A604.

List of Items Controlled

Unit: End items in number; parts, components, accessories and attachments in $ value.
Related Controls: (1) Smoke bombs, non-irritant smoke flares, canisters, grenades and charges, and other pyrotechnical articles having both military and commercial applications are controlled by ECCN 1A984. (2) Certain explosive detonator firing sets, electrically driven explosive detonators, and detonators and multipoint initiation systems are controlled by ECCN 1A007 or ECCN 3A232. (3) See ECCN 0A919 for foreign-made ''military commodities'' that that incorporate more than a *de minimis* amount of U.S.-origin ''600 series'' controlled content.
Related Definitions: N/A
Items:

a. Demolition blocks and detonators designed, modified, or adapted therefor.

b. Military explosive excavating devices.

Note to 0A604.a and .b: This entry does not control the detonators and other items described in ECCN 1A007 or ECCN 3A232.

c. Smoke hand grenades and stun hand grenades (e.g., ''flashbangs'') not controlled by ECCN 1A984.

d. through w. [RESERVED]

x. ''Parts,'' ''components,'' ''accessories,'' and ''attachments'' that are ''specially designed'' for a commodity subject to control in paragraphs .a through .c of this ECCN, or a defense article controlled under USML Category IV, and not specified elsewhere on the CCL or the USML.

Note 1 to 0A604.x: Forgings, castings, and other unfinished products (such as extrusions and machined bodies) that have reached a stage in manufacturing, where they are clearly identifiable (by material composition, geometry, or function) as commodities controlled by ECCN 0A604.x, are controlled by ECCN 0A604.x.

Note 2 to 0A604.x: ''Parts,'' ''components,'' ''accessories,'' and ''attachments'' specified in USML Category IV(h) are subject to the controls of that paragraph.

■ 3. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities, and Equipment [and Miscellaneous Items], add a new ECCN 0B604 between ECCNs 0B006 and 0B986 to read as follows:

0B604 Test, inspection, and production ''equipment'' and related commodities ''specially designed'' for the ''development'' or ''production'' of commodities in ECCN 0A604 or related defense articles in USML Category IV.

License Requirements

Reason for Control: NS, RS, AT

Control(s)	*Country chart*
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1
AT applies to entire entry.	AT Column 1

License Exceptions

LVS: $1500
GBS: N/A
CIV: N/A
STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 0B604.

List of Items Controlled

Unit: $ value
Related Controls: See ECCN 9B604, which controls test, inspection, and production ''equipment'' and related commodities ''specially designed'' for the ''development'' or ''production'' of commodities in ECCN 9A604 or related defense articles in USML Category IV.
Related Definitions: N/A
Items:

a. Test, inspection, and other production ''equipment'' that are ''specially designed'' for the ''production'' or ''development'' of commodities controlled by ECCN 0A604, or related defense articles controlled under USML Category IV, and not specified elsewhere in the CCL or the USML.

b. through w. [RESERVED]

x. ''Parts,'' ''components,'' ''accessories,'' and ''attachments'' that are ''specially designed'' for a commodity subject to control in paragraph .a of this ECCN.

■ 4. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities, and Equipment [and Miscellaneous Items], ECCN 0D001 is amended by revising the heading of the ECCN to read as follows:

0D001 ''Software'' specially designed or modified for the ''development,'' ''production,'' or ''use'' of items described in ECCN 0A001 or 0A002, 0B (except for ECCNs 0B601, 0B602, 0B603, 0B604, 0B606, 0B614, 0B617, 0B986 and 0B999), or 0C (except for ECCN 0C617).

* * * * *

■ 5. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities, and Equipment [and Miscellaneous Items], add a new ECCN 0D604 between ECCNs 0D001 and 0D999 to read as follows:

0D604 ''Software'' ''specially designed'' for the ''development,'' ''production,'' operation or maintenance of commodities controlled by ECCN 0A604 or 0B604.

License Requirements

Reason for Control: NS, RS, AT

Control(s)	*Country chart*
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1
AT applies to entire entry.	AT Column 1

License Exceptions

CIV: N/A
TSR: N/A
STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 0D604.

List of Items Controlled

Unit: $ value
Related Controls: (1) ''Software'' directly related to articles enumerated in USML Category IV is controlled under USML Category IV(i). (2) See ECCN 0A919 for foreign-made ''military commodities'' that incorporate more than a *de minimis* amount of U.S.-origin ''600 series'' controlled content.
Related Definitions: N/A
Items:

a. ''Software'' ''specially designed'' for the ''development,'' ''production,'' operation or maintenance of commodities controlled by ECCN 0A604 or 0B604.

b. [RESERVED]

■ 6. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities, and Equipment [and Miscellaneous Items], ECCN 0E001 is amended by revising the heading of the ECCN to read as follows:

0E001 ''Technology,'' according to the Nuclear Technology Note, for the ''development'', ''production'', or ''use'' of items described in ECCN 0A001 or 0A002, 0B (except for ECCNs 0B601, 0B602, 0B603, 0B604, 0B606, 0B614, 0B617, 0B986 and 0B999), 0C (except for ECCN 0C617), or ECCN 0D001.

* * * * *

■ 7. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities, and Equipment [and Miscellaneous Items], add a new ECCN 0E604 between ECCNs 0E018 and 1E918 to read as follows:

0E604 ''Technology'' ''required'' for the ''development,'' ''production,'' operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 0A604 or 0B604, or ''software'' controlled by ECCN 0D604.

License Requirements

Reason for Control: NS, RS, AT

Control(s)	*Country chart*
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1
AT applies to entire entry.	AT Column 1

License Exceptions

CIV: N/A
TSR: N/A
STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 0E604.

List of Items Controlled

Unit: N/A
Related Controls: Technical data directly related to articles enumerated in USML Category IV are controlled under USML Category IV(i).
Related Definitions: N/A
Items:

a. ''Technology'' ''required'' for the ''development,'' ''production,'' operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 0A604 or 0B604, or ''software'' controlled by ECCN 0D604.

b. [RESERVED]

■ 8. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, add a new ECCN 9A604 between ECCNs 9A120 and 9A980 to read as follows:

9A604 Commodities related to launch vehicles, missiles, rockets, torpedoes, bombs, and mines.

License Requirements

Reason for Control: NS, RS, MT, AT

Control(s)	*Country chart*
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1
MT applies to 9A604.a, .c, and .d.	MT Column 1
AT applies to entire entry.	AT Column 1

License Exceptions

LVS: N/A
GBS: N/A
CIV: N/A
STA: (1) License Exception STA is not available for items in this ECCN 9A604 that are controlled for MT reasons (see § 740.20(b)(2)(iii) of the EAR). (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9A604.

List of Items Controlled

Unit: End items in number; parts, components, accessories and attachments in $ value.
Related Controls: (1) Launch vehicles, missiles, rockets, torpedoes, bombs, and mines are subject to the ITAR (See 22 CFR § 121.1, USML Category IV). (2) See ECCN 0A919 for foreign-made ''military commodities'' that incorporate more than a *de minimis* amount of U.S.-origin ''600 series'' controlled content.
Related Definitions: N/A
Items:

a. Thermal batteries ''specially designed'' for systems controlled under USML Category IV capable of a range equal to or greater than 300 km.

b. Thermal batteries, except for thermal batteries controlled by 9A604.a, that are ''specially designed'' for systems controlled under USML Category IV.

c. ''Components'' ''specially designed'' for ramjet, scramjet, pulse jet, or combined cycle engines controlled under USML Category IV, including devices to regulate combustion in such commodities.

d. ''Components'' ''specially designed'' for hybrid rocket motors controlled under USML Category IV usable in rockets, missiles, or unmanned aerial vehicles capable of a range equal to or greater than 300 km.

e. ''Components'' ''specially designed'' for pressure gain combustion-based propulsion systems controlled under USML Category IV.

f. through w. [RESERVED]

x. ''Parts,'' ''components,'' ''accessories,'' and ''attachments'' that are ''specially designed'' for a commodity subject to control in paragraphs .a through .d of this ECCN, or a defense article controlled under USML Category IV, and not specified elsewhere on the CCL or the USML.

Note 1 to 9A604.x: Forgings, castings, and other unfinished products (such as extrusions and machined bodies) that have reached a stage in manufacturing, where they are clearly identifiable (by material composition, geometry, or function) as commodities controlled by ECCN 9A604.x, are controlled by ECCN 9A604.x.

Note 2 to 9A604.x: ''Parts,'' ''components,'' ''accessories,'' and ''attachments'' specified in USML Category IV(h) are subject to the controls of that paragraph.

■ 9. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9B115 is amended by revising the heading of the ECCN and by revising the ''Related Controls'' paragraph in the List of Items Controlled to read as follows:

9B115 ''Specially designed'' production ''equipment'' for systems, sub-systems and ''components'' controlled by ECCN 9A101 or by USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17).

* * * * *

List of Items Controlled

Unit: * * *
Related Controls: (1) Although items described in USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17) are subject to the export licensing authority of the Department of State, Directorate of Defense Trade Controls (22 CFR part 121), the production ''equipment'' controlled in this entry that is related to these items is subject to the export licensing authority of BIS. (2) ''Specially designed'' production ''equipment'' for systems, sub-systems, and ''components'' described in USML Category IV(d)(1), (d)(7), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), (h)(26), or (h)(28) are controlled by ECCN 9B604.
Related Definitions: * * *
Items: * * *

■ 10. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9B116 is amended by revising the heading of the ECCN and by revising the ''Related Controls'' paragraph in the List of Items Controlled to read as follows:

9B116 ''Specially designed'' ''production facilities'' for systems, sub-systems, and ''components'' controlled by ECCN 9A012 or 9A101 or by USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17).

* * * * *

List of Items Controlled

Unit: * * *
Related Controls: (1) Although items described in USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17) are subject to the export licensing authority of the Department of State, Directorate of Defense Trade Controls (22 CFR part 121), the ''production facilities'' controlled in this entry that are related to these items is subject to the export licensing authority of BIS. (2) ''Specially designed'' ''production facilities'' for systems, sub-systems, and ''components'' described in USML Category IV(d)(1), (d)(7), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), (h)(26), or (h)(28) are controlled by ECCN 9B604.

Related Definitions: * * *
Items: * * *

■ 11. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, add a new ECCN 9B604 between ECCNs 9B117 and 9B990 to read as follows:

9B604 Test, inspection, and production ''equipment'' and related commodities ''specially designed'' for the ''development'' or ''production'' of commodities in ECCN 9A604 or related defense articles in USML Category IV.

License Requirements

Reason for Control: NS, RS, MT, AT

Control(s)	*Country chart*
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1
MT applies to 9B604.a and .b and to 9B604.d ''specially designed'' ''production facilities'' or production ''equipment'' for defense articles identified as MTCR Annex items in USML Category IV(d)(1), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), or (h)(26).	MT Column 1
AT applies to entire entry.	AT Column 1

License Exceptions

LVS: $1,500
GBS: N/A
CIV: N/A
STA: (1) License Exception STA is not available for items in this ECCN 9B604 that are controlled for MT reasons (see § 740.20(b)(2)(iii) of the EAR). (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9B604.

List of Items Controlled

Unit: $ value.
Related Controls: (1) ''Production facilities'' for the ''production'' or ''development'' of commodities enumerated in ECCN 9A012 or 9A101 or in USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17) are controlled by ECCN 9B116. (2) Test, inspection, and other production ''equipment'' ''specially designed'' for the ''production'' or ''development'' of commodities enumerated in ECCN 9A101 or in USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17) are controlled by ECCN 9B115.
Related Definitions: N/A
Items:

a. ''Production facilities'' ''specially designed'' for items that are controlled by USML Category IV(a)(1) or (a)(2).

b. Test, calibration, and alignment equipment ''specially designed'' for items that are controlled by USML Category IV(h)(28).

c. Test, inspection, and other production ''equipment'' that is ''specially designed'' for the ''production'' or ''development'' of commodities described in ECCN 9A604, or defense articles controlled under USML Category IV, and not specified elsewhere on the CCL or the USML.

d. ''Specially designed'' ''production facilities'' or production ''equipment'' for systems, sub-systems, and ''components'' controlled by USML Category IV(d)(1), (d)(7), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), (h)(26), or (h)(28).

e. through w. [RESERVED]

x. ''Parts,'' ''components,'' ''accessories,'' and ''attachments'' that are ''specially designed'' for a commodity subject to control in paragraph .a or .b of this ECCN.

■ 12. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9D001 is amended by revising the ECCN heading, by revising the MT controls paragraph in the License Requirements section, and by revising the Related Controls paragraph in the List of Items Controlled to read as follows:

9D001 ''Software'' specially designed or modified for the ''development'' of equipment or ''technology'' controlled by ECCN 9A001 to 9A004 (except for items in 9A004 that are subject to the ITAR, see 22 CFR part 121), 9A012, 9A101 (except for items in 9A101.b that are subject to the ITAR, see 22 CFR part 121), 9A106.d. or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991), or ECCN 9E003.

License Requirements

Reason for Control: * * *

Control(s)	*Country chart*
* * * * *	
MT applies to ''software'' for equipment controlled by 9B116 for MT reasons.	MT Column 1
* * * * *	

License Requirements Notes: * * *
* * * * * *

List of Items Controlled

Unit: * * *
Related Controls: ''Software'' that is ''required'' for the ''development'' of items specified in ECCNs 9A004 (except for items that are subject to the EAR), 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are ''specially designed'' for use in missile systems and subsystems), and 9A111 to 9A119 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).
Related Definitions: * * *
Items: * * *

■ 13. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9D002 is amended by revising the ECCN heading, by revising the NS controls paragraph in the License Requirements section, and by revising the Related Controls paragraph in the List of Items Controlled to read as follows:

9D002 ''Software'' specially designed or modified for the ''production'' of equipment controlled by ECCN 9A001 to 9A004 (except for items in 9A004 that are subject to the ITAR, see 22 CFR part 121), 9A012, 9A101 (except for items in 9A101.b that are subject to the ITAR, see 22 CFR part 121), 9A106.d or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991).

License Requirements

Reason for Control: * * *

Control(s)	*Country chart*
NS applies to ''software'' for equipment controlled by 9A001 to 9A003, 9A012, and 9B001 to 9B010..	NS Column 1

* * * * *

License Requirements Notes: * * *
* * * * * *

List of Items Controlled

Unit: * * *
Related Controls: ''Software'' that is ''required'' for the ''production'' of items specified in ECCNs 9A004 (except for items that are subject to the EAR), 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are ''specially designed'' for use in missile systems and subsystems), and 9A111 to 9A119 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).
Related Definitions: * * *
Items: * * *

■ 14. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9D003 is amended by revising the ECCN heading and by revising the Related Controls paragraph in the List of Items Controlled to read as follows:

9D003 ''Software'' incorporating ''technology'' specified by ECCN 9E003.h and used in ''FADEC Systems'' for propulsion systems controlled by ECCN 9A001 to 9A004 (except for items in 9A004 that are subject to the ITAR, see 22 CFR part 121), 9A101 (except for

items in 9A101.b that are subject to the ITAR, see 22 CFR part 121), 9A106.d or .e, or 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991).

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: (1) See also 9D103. (2) ''Software'' ''required'' for the ''use'' of equipment specified in ECCNs 9A004 (except for items that are subject to the EAR), 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are ''specially designed'' for use in missile systems and subsystems), and 9A111 to 9A119 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121). (3) ''Software'' ''required'' for the ''use'' of ''technology'' subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls is also subject to the same licensing jurisdiction (see 22 CFR part 121).

Related Definitions: * * *

Items: * * *

■ 15. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9D104 is amended by revising the heading of the ECCN and by revising the Related Controls paragraph in the List of Items Controlled to read as follows:

9D104 ''Software'' specially designed or modified for the ''use'' of equipment controlled by ECCN 9A001, 9A012 (for MT controlled items only), 9A101 (except for items in 9A101.b that are subject to the ITAR, see 22 CFR part 121), or 9A106.d.

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: ''Software'' for commodities specified in ECCNs 9A005 to 9A011, 9A103 to 9A105, 9A101.b (except for items that are subject to the EAR), 9A106.a, .b, and .c, 9A107 to 9A109, 9A111, 9A115 to 9A118 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

Related Definitions: * * *

Items: * * *

■ 16. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, add a new ECCN 9D604 between ECCNs 9D105 and 9D990 to read as follows:

9D604 ''Software'' ''specially designed'' for the ''development,'' ''production,'' operation or maintenance of commodities controlled by ECCN 9A604 or 9B604.

License Requirements

Reason for Control: NS, RS, MT, AT

Control(s)	*Country chart*
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1
MT applies to ''software,'' as described in paragraph .a of this entry, for commodities controlled for MT reasons in ECCN 9A604 or 9B604.	MT Column 1
AT applies to entire entry.	AT Column 1

License Exceptions

CIV: N/A

TSR: N/A

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9D604.

List of Items Controlled

Unit: $ value

Related Controls: (1) Software directly related to articles enumerated in USML Category IV is controlled under USML Category IV(i). (2) See also ECCNs 9D101 and 9D104 for controls on ''software'' for the ''use'' of missiles and related commodities. (3) See ECCN 0A919 for foreign-made ''military commodities'' that incorporate more than a *de minimis* amount of U.S.-origin ''600 series'' controlled content.

Related Definitions: N/A

Items:

a. ''Software'' ''specially designed'' for the ''development,'' ''production,'' operation or maintenance of commodities controlled by ECCN 9A604 or ECCN 9B604.

b. [RESERVED]

■ 17. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9E001 is amended by revising the ECCN heading, by revising the MT controls paragraph in the License Requirements section, and by revising the Related Controls paragraphs in the List of Items Controlled to read as follows:

9E001 ''Technology'' according to the General Technology Note for the ''development'' of equipment or ''software'', controlled by ECCN 9A001.b, 9A004 (except for items in 9A004 that are subject to the ITAR, see 22 CFR part 121), or 9A012, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991), or ECCN 9D001 to 9D004, 9D101, or 9D104.

License Requirements

Reason for Control: * * *

Control(s)	*Country chart*
* * * * *	
MT applies to ''technology'' for equipment controlled by 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B105, 9B106, 9B115, 9B116, 9B117, 9D001, 9D002, 9D003, or 9D004 for MT reasons.	MT Column 1
* * * * *	

License Requirements Notes: * * *

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: (1) See also 9E101 and 1E002.f (for controls on ''technology'' for the repair of controlled structures, laminates or materials). (2) ''Technology'' required for the ''development'' of equipment described in ECCNs 9A004 (except for items that are subject to the EAR), 9A005 to 9A011 or ''software'' described in ECCNs 9D103 and 9D105 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

Related Definitions: * * *

Items: * * *

■ 18. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9E002 is amended by revising the ECCN heading, by revising the MT controls paragraph in the License Requirements section, and by revising the Related Controls paragraphs in the List of Items Controlled to read as follows:

9E002 ''Technology'' according to the General Technology Note for the ''production'' of ''equipment'' controlled by ECCN 9A001.b, 9A004 (except for items in 9A004 that are subject to the ITAR, see 22 CFR part 121) or 9B (except for ECCNs 9B117, 9B604, 9B610, 9B619, 9B990, and 9B991).

License Requirements

Reason for Control: * * *

Control(s)	*Country chart*
* * * * *	
MT applies to ''technology'' for equipment controlled by 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B105, 9B106, 9B115, or 9B116 for MT reasons.	MT Column 1

Control(s)	Country chart

* * * * *

License Requirements Notes: * * *

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: (1) See also 9E102. (2) See also 1E002.f for ''technology'' for the repair of controlled structures, laminates or materials. (3) ''Technology'' that is required for the ''production'' of equipment described in ECCNs 9A004 (except for items that are subject to the EAR) or 9A005 to 9A011 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

Related Definitions: * * *

Items: * * *

■ 19. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9E101 is amended by revising the heading of the ECCN and by revising the ''Related Controls'' paragraph in the List of Items Controlled to read as follows:

9E101 ''Technology'' according to the General Technology Note for the ''development'' or ''production'' of commodities or ''software'' controlled by ECCN 9A012, 9A101 (except for items in 9A101.b that are subject to the ITAR, see 22 CFR part 121), 9A106.d or .e, 9A110 (for items that are ''specially designed'' for non-military unmanned air vehicles controlled by 9A012), 9C110, 9D101, or 9D104.

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: ''Technology'' that is required for items specified in ECCNs 9A101.b (except for items that are subject to the EAR), 9A104, 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are ''specially designed'' for use in missile systems and subsystems), 9A111, 9A115 to 9A119, 9D103, and 9D105 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

Related Definitions: * * *

Items: * * *

■ 20. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, ECCN 9E102 is amended by revising the heading of the ECCN and by revising the ''Related Controls'' paragraph in the List of Items Controlled to read as follows:

9E102 ''Technology'' according to the General Technology Note for the ''use'' of commodities or ''software'' controlled by ECCN 9A004 (except for items in 9A004 that are subject to the ITAR, see 22 CFR part 121), 9A012, 9A101 (except for items in 9A101.b that are subject to the ITAR, see 22 CFR part 121), 9A106.d or .e, 9A110 (for items that are ''specially designed'' for non-military unmanned air vehicles controlled by 9A012), 9B105, 9B106, 9B115, 9B116, 9D101, or 9D104.

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: (1) For the purpose of this entry, ''use'' ''technology'' is limited to items controlled for MT and their subsystems. (2) ''Technology'' for items specified in ECCNs 9A004 (except for items that are subject to the EAR), 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A104, 9A105, 9A106.a, .b and .c, 9A107 to 9A109, 9A110 (for items that are ''specially designed'' for use in missile systems and subsystems), 9A111, 9A115 to 9A119, 9D103, and 9D105 is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

Related Definitions: * * *

Items: * * *

■ 21. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, add a new ECCN 9E604 between ECCNs 9E102 and 9E990 to read as follows:

9E604 ''Technology'' ''required'' for the ''development,'' ''production,'' operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 9A604 or 9B604, or ''software'' controlled by ECCN 9D604.

License Requirements

Reason for Control: NS, RS, MT, AT

Control(s)	Country chart
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to ''technology,'' as described in paragraph .a of this entry, for commodities and ''software'' controlled for MT reasons in ECCN 9A604, 9B604 or 9D604.	MT Column 1
AT applies to entire entry	AT Column 1

License Exceptions

CIV: N/A

TSR: N/A

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9E604.

List of Items Controlled

Unit: $ value

Related Controls: (1) Technical data directly related to articles enumerated in USML Category IV is controlled under USML Category IV(i). (2) See also ECCNs 9E002, 9E101, and 9E102 for controls on ''technology'' for the ''development,'' ''production,'' and ''use'' of missiles and related items controlled on the CCL.

Related Definitions: N/A

Items:

a. ''Technology'' ''required'' for the ''development,'' ''production,'' operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 9A604 or 9B604, or ''software'' controlled by ECCN 9D604.

b. [RESERVED]

Dated: January 18, 2013.

Kevin J. Wolf,

Assistant Secretary for Export Administration.

[FR Doc. 2013–01904 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–33–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Parts 1, 16, 106, 110, 112, 114, 117, 120, 123, 129, 179, and 211

[Docket Nos. FDA–2011–N–0920 and FDA–2011–N–0921]

Food and Drug Administration Food Safety Modernization Act: Proposed Rules To Establish Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption and for Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Human Food; Public Meeting

AGENCY: Food and Drug Administration, HHS.

ACTION: Notification of public meeting.

SUMMARY: The Food and Drug Administration (FDA) is announcing a public meeting to discuss the proposed rules to establish standards for the growing, harvesting, packing, and holding of produce for human consumption (the produce safety proposed rule) and for current good manufacturing practice and hazard analysis and risk-based preventive controls for human food (the preventive controls proposed rule), which are the first of several proposed rules that would establish the foundation of, and central framework for, the modern food safety system envisioned by Congress in the FDA Food Safety Modernization Act (FSMA). The purpose of the public meeting is to solicit oral stakeholder and public comments on the proposed rules and to inform the public about the rulemaking process (including how to submit comments, data, and other information to the rulemaking dockets), and to respond to questions about the proposed rules.

DATES: See section II ''How to Participate in the Public Meeting'' in the **SUPPLEMENTARY INFORMATION** section of this document for date and time of the public meeting, closing dates for advance registration, and information on deadlines for submitting either electronic or written comments to FDA's Division of Dockets Management.

ADDRESSES: See section II ''How to Participate in the Public Meeting'' in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: *For questions about registering for the meeting, to register by phone, or to submit a notice of participation by mail, fax, or email:* Courtney Treece, Planning Professionals, Ltd., 1210 West McDermott Dr., suite 111, Allen, TX 75013, 704–258–4983, FAX: 469–854–6992, email: *ctreece@planningprofessionals.com.*

For general questions about the meeting, to request an opportunity to make an oral presentation at the public meeting, to submit the full text, comprehensive outline, or summary of an oral presentation, or for special accommodations due to a disability, contact: Juanita Yates, Center for Food Safety and Applied Nutrition (HFS–009), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 240–402–1731, email: *Juanita.yates@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

FSMA (Pub. L. 111–353), was signed into law by President Obama on January 4, 2011, to better protect public health by helping to ensure the safety and security of the food supply. FSMA amends the Federal Food, Drug, and Cosmetic Act (the FD&C Act) to establish the foundation of a modernized, prevention-based food safety system. Among other things, FSMA requires FDA to issue regulations requiring preventive controls for human and animal food and set standards for produce safety.

FSMA was the first major legislative reform of FDA's food safety authorities in more than 70 years, even though FDA has increased the focus of its food safety efforts on prevention over the past several years. For example, applying the concept of Hazard Analysis and Critical Control Point (HACCP) that was pioneered by industry in the late 1960s, FDA established HACCP-based regulations for seafood (21 CFR part 123) in 1995 (60 FR 65096, December 18, 1995) and for juice (21 CFR part 120) in 2001 (66 FR 6138, January 19, 2001). Similarly, in 1996, the U.S. Department of Agriculture's Food Safety and Inspection Service instituted HACCP-based rules for meat and poultry (9 CFR part 417) (61 FR 38806, July 25, 1996).

In the **Federal Register** of January 16, 2013 (78 FR 3503 and 78 FR 3646), FDA announced the establishment of two dockets so that the public can review the produce safety proposed rule and the preventive controls proposed rule and submit comments to the Agency. These proposed rulemakings are the first of several key proposals in furtherance of FSMA's food safety mandate. The produce safety proposed rule would establish science-based minimum standards for the safe growing, harvesting, packing, and holding of produce, meaning fruits and vegetables, grown for human consumption. The produce safety proposed rule would set forth procedures, processes, and practices that FDA expects would reduce foodborne illness associated with the consumption of produce. The produce safety proposed rule and related fact sheets are available on FDA's FSMA Web page located at *http://www.fda.gov/Food/FoodSafety/FSMA/default.htm.*

The preventive controls proposed rule would apply to human food and require domestic and foreign facilities that are required to register under the FD&C Act to have written plans that identify hazards, specify the steps that will be put in place to minimize or prevent those hazards, monitor results, and act to correct problems that arise. The preventive controls proposed rule and related fact sheets are available on FDA's FSMA Web page located at *http://www.fda.gov/Food/FoodSafety/FSMA/default.htm.*

FDA is announcing a series of public meetings entitled ''The Food Safety Modernization Act Public Meeting on Proposed Rules for Produce Safety and for Preventive Controls for Human Food'' so that the food industry, consumers, foreign governments, and other stakeholders can evaluate and comment on the proposals. The Washington, DC public meeting is the first of three that the Agency will hold during the proposed rules' comment period. We intend to hold the additional public meetings in Chicago, IL and Portland, OR. Specific locations, dates, and registration information for these meetings will appear in a separate **Federal Register** document to publish shortly. All three public meetings will have the same agenda and are intended to facilitate and support the proposed rules' evaluation and commenting process.

II. How To Participate in the Public Meeting

FDA is holding the public meeting on the produce safety proposed rule and the preventive controls proposed rule to inform the public about the rulemaking process, including how to submit comments, data, and other information to the rulemaking docket; to respond to questions about the proposed rules; and to provide an opportunity for interested persons to make oral presentations. Due to limited space and time, FDA encourages all persons who wish to attend the meeting to register in advance. There is no fee to register for the public meeting, and registration will be on a first-come, first-served basis. Early registration is recommended because seating is limited. Onsite registration will be accepted, as space permits, after all preregistered attendees are seated.

Those requesting an opportunity to make an oral presentation during the time allotted for public comment at the meeting are asked to submit a request and to provide the specific topic or issue to be addressed. Due to the anticipated high level of interest in presenting public comment and limited time available, FDA is allocating 3 minutes to each speaker to make an oral presentation. Speakers will be limited to making oral remarks; there will not be an opportunity to display materials such as slide shows, videos, or other media during the meeting. If time permits, individuals or organizations that did not register in advance may be granted the opportunity to make an oral presentation. FDA would like to maximize the number of individuals who make a presentation at the meeting and will do our best to accommodate all persons who wish to make a presentation or express their opinions at the meeting.

FDA encourages persons and groups who have similar interests to consolidate their information for presentation by a single representative. After reviewing the presentation requests, FDA will notify each participant before the meeting of the approximate time their presentation is scheduled to begin, and remind them of the presentation format (i.e., 3-minute oral presentation without visual media).

While oral presentations from specific individuals and organizations will be necessarily limited due to time constraints during the public meeting, stakeholders may submit electronic or written comments discussing any issues of concern to the administrative record (the docket) for the rulemaking. All relevant data and documentation should

be submitted with the comments to the relevant docket (i.e., for the produce safety proposed rule, Docket No. FDA–2011–N–0921; and for the preventive controls proposed rule, Docket No. FDA–2011–N–0920).

Table 1 of this document provides information on participation in the public meetings:

TABLE 1—INFORMATION ON PARTICIPATION IN THE MEETINGS AND ON SUBMITTING COMMENTS TO THE RULEMAKING DOCKETS

	Date	Electronic address	Address	Other information
Public meeting	February 28, 2013, from 8:30 a.m. to 5 p.m. and March 1, 2013, from 8:30 a.m. to 12 p.m.	.....	Jefferson Auditorium U.S. Department of Agriculture (USDA), Wing 5 Entrance, 14th and Independence Ave. SW., Washington, DC 20024. *Photo ID Required.*	Onsite registration both days from 8 a.m. to 8:30 a.m.
Advance registration ..	By February 20, 2013	Individuals who wish to participate in person are asked to preregister at *http://www.fda.gov/Food/NewsEvents/WorkshopsMeetingsConferences/default.htm.*	We encourage you to use electronic registration if possible[1].	There is no registration fee for the public meetings. Early registration is recommended because seating is limited.
Request to make an oral presentation.	By February 8, 2013 ..	*http://www.fda.gov/Food/NewsEvents/WorkshopsMeetingsConferences/default.htm*[2].		Requests made on the day of the meeting to make an oral presentation will be granted as time permits. Information on requests to make an oral presentation may be posted without change to *http://www.regulations.gov,* including any personal information provided.
Request special accommodations due to a disability.	By February 15, 2013	Juanita Yates, email: *Juanita.yates@fda.hhs.gov.*	See **FOR FURTHER INFORMATION CONTACT**.	
Submit electronic or written comments.	By May 16, 2013	Docket Nos. FDA–2011–N–0920 and FDA–2011–N–0921. Preventive Controls for Human Food Proposed Rule: *http://www.regulations.gov/#!docketDetail;D=FDA-2011-N-0920.* Produce Safety Proposed Rule: *http://www.regulations.gov/#!docketDetail;D=FDA-2011-N-0921.*		

[1] You may also register via email, mail, or fax. Please include your name, title, firm name, address, and phone and FAX numbers in your registration information and send to Courtney Treece (see **FOR FURTHER INFORMATION CONTACT**). Onsite registration will also be available.

[2] You may also request to make an oral presentation at the public meeting via email. Please include your name, title, firm name, address, and phone and fax numbers as well as the full text, comprehensive outline, or summary of your oral presentation, and send to Juanita Yates (see **FOR FURTHER INFORMATION CONTACT**).

III. Comments, Transcripts, and Recorded Video

Information and data submitted voluntarily to FDA during the public meeting will become part of the administrative record for the relevant rulemaking and will be accessible to the public at *http://www.regulations.gov.* The transcript of the proceedings from the public meeting will become part of the administrative record for each of the rulemakings. Please be advised that as soon as a transcript is available, it will be accessible at *http://www.regulations.gov* and at FDA's FSMA Web site at *http://www.fda.gov/Food/FoodSafety/FSMA/.* It may also be viewed at the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. A transcript will also be available in either hardcopy or on CD–ROM, after submission of a Freedom of Information request. Written requests are to be sent to the Division of Freedom of Information (ELEM–1029), 12420 Parklawn Dr., Element Bldg., Rockville, MD 20857. Additionally, FDA will be video recording the public meeting. Once the recorded video is available, it will be accessible at FDA's FSMA Web site at *http://www.fda.gov/Food/FoodSafety/FSMA/.*

Dated: January 24, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02089 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF STATE

22 CFR Parts 120, 121, and 123

RIN 1400–AD19

[Public Notice 8165]

Amendment to the International Traffic in Arms Regulations: Revision of U.S. Munitions List Category IV

AGENCY: Department of State.

ACTION: Proposed rule.

SUMMARY: As part of the President's Export Control Reform effort, the Department of State proposes to amend the International Traffic in Arms Regulations (ITAR) to revise Category IV (launch vehicles, guided missiles, ballistic missiles, rockets, torpedoes, bombs, and mines) of the U.S. Munitions List (USML) to describe more precisely the articles warranting control on the USML. The revisions contained in this rule are part of the Department of State's retrospective plan under E.O. 13563 completed on August 17, 2011. The Department of State's full plan can be accessed at http://www.state.gov/documents/organization/181028.pdf. In addition, several ITAR sections addressing the Missile Technology Control Regime (MTCR) Annex are revised to provide a new method of identifying articles common to the MTCR Annex and the USML. And, the ITAR section describing shipments between U.S. possessions is clarified to only encompass those shipments that do not transit a foreign country.

DATES: The Department of State will accept comments on this proposed rule until March 18, 2013.

ADDRESSES: Interested parties may submit comments within 45 days of the date of publication by one of the following methods:

- *Email:* *DDTCResponseTeam@state.gov* with the subject line, ''ITAR Amendment—Category IV.''
- *Internet:* At *www.regulations.gov,* search for this notice by using this rule's RIN (1400–AD19).

Comments received after that date will be considered if feasible, but consideration cannot be assured. Those submitting comments should not include any personally identifying information they do not desire to be made public or information for which a claim of confidentiality is asserted because those comments and/or transmittal emails will be made available for public inspection and copying after the close of the comment period via the Directorate of Defense Trade Controls Web site at *www.pmddtc.state.gov.* Parties who wish to comment anonymously may do so by submitting their comments via *www.regulations.gov,* leaving the fields that would identify the commenter blank and including no identifying information in the comment itself. Comments submitted via *www.regulations.gov* are immediately available for public inspection.

FOR FURTHER INFORMATION CONTACT: Ms. Candace M. J. Goforth, Director, Office of Defense Trade Controls Policy, U.S. Department of State, telephone (202) 663–2792, or email *DDTCResponseTeam@state.gov.* ATTN: Regulatory Change, USML Category IV.

SUPPLEMENTARY INFORMATION: The Directorate of Defense Trade Controls (DDTC), U.S. Department of State, administers the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120–130). The items subject to the jurisdiction of the ITAR, *i.e.,* ''defense articles,'' are identified on the ITAR's U.S. Munitions List (USML) (22 CFR 121.1). With few exceptions, items not subject to the export control jurisdiction of the ITAR are subject to the jurisdiction of the Export Administration Regulations (''EAR,'' 15 CFR parts 730–774, which includes the Commerce Control List (CCL) in Supplement No. 1 to part 774), administered by the Bureau of Industry and Security (BIS), U.S. Department of Commerce. Both the ITAR and the EAR impose license requirements on exports and reexports. Items not subject to the ITAR or to the exclusive licensing jurisdiction of any other set of regulations are subject to the EAR.

All references to the USML in this rule are to the list of defense articles that are controlled for the purpose of export or temporary import pursuant to the ITAR, and not to the defense articles on the USML that are controlled by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) for the purpose of permanent import under its regulations (*see* 27 CFR part 447). Pursuant to section 38(a)(1) of the Arms Export Control Act (AECA), all defense articles controlled for export or import are part of the USML under the AECA. For the sake of clarity, the list of defense articles controlled by ATF for the purpose of permanent import is the United States Munitions Import List (USMIL). The transfer of defense articles from the ITAR's USML to the EAR's CCL for the purpose of export control does not affect the list of defense articles controlled on the USMIL under the AECA for the purpose of permanent import.

Export Control Reform Update

The Departments of State and Commerce described in their respective Advanced Notices of Proposed Rulemaking (ANPRM) in December 2010 the Administration's plan to make the USML and the CCL positive, tiered, and aligned so that eventually they can be combined into a single control list (*see* ''Commerce Control List: Revising Descriptions of Items and Foreign Availability,'' 75 FR 76664 (December 9, 2010) and ''Revisions to the United States Munitions List,'' 75 FR 76935 (December 10, 2010)). The notices also called for the establishment of a ''bright line'' between the USML and the CCL to reduce government and industry uncertainty regarding export jurisdiction by clarifying whether particular items are subject to the jurisdiction of the ITAR or the EAR. While these remain the Administration's ultimate Export Control Reform objectives, their concurrent implementation would be problematic in the near term. In order to more quickly reach the national security objectives of greater interoperability with U.S. allies, enhancing the defense industrial base, and permitting the U.S. Government to focus its resources on controlling and monitoring the export and reexport of more significant items to destinations, end-uses, and end-users of greater concern than NATO allies and other multi-regime partners, the Administration has decided, as an interim step, to propose and implement revisions to both the USML and the CCL that are more positive, but not yet tiered.

Specifically, based in part on a review of the comments received in response to the December 2010 notices, the Administration has determined that fundamentally altering the structure of the USML by tiering and aligning it on a category-by-category basis would significantly disrupt the export control compliance systems and procedures of exporters and reexporters. For example, until the entire USML was revised and became final, some USML categories would follow the legacy numbering and control structures while the newly revised categories would follow a completely different numbering structure. In order to allow for the national security benefits to flow from re-aligning the jurisdictional status of defense articles that no longer warrant control on the USML on a category-by-category basis while minimizing the impact on exporters' internal control and jurisdictional and classification marking systems, the Administration plans to proceed with building positive

lists now and afterward return to structural changes.

Revision of Category IV and Other ITAR Sections

This proposed rule revises USML Category IV (launch vehicles, guided missiles, ballistic missiles, rockets, torpedoes, bombs, and mines).

Paragraph (a) is revised to remove demolition blocks and blasting caps, and to add subparagraphs (1) through (11) to more clearly describe the articles controlled in (a). ITAR § 121.11, which further describes demolition blocks and blasting caps, is removed and placed in reserve.

Paragraphs (b) and (d) are revised to more specifically enumerate the articles controlled therein.

Military explosive excavating devices, currently enumerated in paragraph (e), are to be transferred to the jurisdiction of the Department of Commerce under Export Control Classification Number (ECCN) 0A604.c. The articles currently enumerated in paragraph (f), ablative materials, will remain under ITAR control but are to be moved to USML Category XIII(d).

Paragraph (h) is revised by removing its broad catch-all wording and adding subparagraphs (1) through (31) to specifically enumerate the articles controlled in that paragraph.

ITAR § 121.5, which provides clarification of paragraph (c), is removed. Articles currently therein are identified in a note to paragraph (c) or are enumerated in paragraph (h).

ITAR § 121.16, which lists articles on the Missile Technology Control Regime (MTCR) Annex also enumerated on the USML, including in USML Category IV, is removed and placed in reserve. Articles common to the MTCR Annex and the USML are to be identified on the USML with the parenthetical ''(MT)'' at the end of each section containing such articles. ITAR §§ 120.29, 121.1(c), and 121.2 are also revised accordingly.

Finally, ITAR § 123.12 is revised to add clarifying language regarding the shipment of defense articles between U.S. possessions. For a shipment of defense articles between U.S. possessions not to require an export license, the shipment must be direct, without transiting a foreign country. A temporary export license is required for shipments that do transit a foreign country.

Definition for Specially Designed

Although one of the goals of the export control reform initiative is to describe USML controls without using design intent criteria, a few of the controls in the proposed revision nonetheless use the term ''specially designed.'' It is, therefore, necessary for the Department to define the term. Three proposed definitions have been published to date. For the purpose of evaluation of this proposed rule, reviewers should use the definition provided by the Department of State in the June 19, 2012, proposed rule (77 FR 36428).

Request for Comments

As the U.S. Government works through the proposed revisions to the USML, some solutions have been adopted that were determined to be the best of available options. With the thought that multiple perspectives would be beneficial to the USML revision process, the Department welcomes the assistance of users of the lists and requests input on the following:

(1) A key goal of this rulemaking is to ensure the USML and the CCL together control all the items that meet Wassenaar Arrangement commitments embodied in Munitions List Category 4 (WA–ML4). To that end, the public is asked to identify any potential lack of coverage brought about by the proposed rules for USML Category IV contained in this notice and for CCL ECCN 0A604 published separately by the Department of Commerce when reviewed together.

(2) The key goal of this rulemaking is to establish a ''bright line'' between the USML and the CCL for the control of these items. The public is asked to provide specific examples of launch vehicles, guided missiles, ballistic missiles, rockets, torpedoes, bombs, and mines whose jurisdiction would be in doubt based on this revision.

In addition, the Department welcomes comments on the proposed revision of §§ 121.16 and 123.12.

Regulatory Analysis and Notices

Administrative Procedure Act

The Department of State is of the opinion that controlling the import and export of defense articles and services is a foreign affairs function of the United States Government and that rules implementing this function are exempt from sections 553 (rulemaking) and 554 (adjudications) of the Administrative Procedure Act (APA). Although the Department is of the opinion that this rule is exempt from the rulemaking provisions of the APA, the Department is publishing this rule with a 45-day provision for public comment and without prejudice to its determination that controlling the import and export of defense services is a foreign affairs function. As noted above, and also without prejudice to the Department position that this rulemaking is not subject to the APA, the Department previously published a related Advance Notice of Proposed Rulemaking (RIN 1400–AC78), and accepted comments for 60 days.

Regulatory Flexibility Act

Since the Department is of the opinion that this proposed rule is exempt from the provisions of 5 U.S.C. 553, there is no requirement for an analysis under the Regulatory Flexibility Act.

Unfunded Mandates Reform Act of 1995

This proposed rulemaking does not involve a mandate that will result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any year and it will not significantly or uniquely affect small governments. Therefore, no actions were deemed necessary under the provisions of the Unfunded Mandates Reform Act of 1995.

Small Business Regulatory Enforcement Fairness Act of 1996

This proposed rulemaking has been found not to be a major rule within the meaning of the Small Business Regulatory Enforcement Fairness Act of 1996.

Executive Orders 12372 and 13132

This proposed rulemaking will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 13132, it is determined that this proposed rulemaking does not have sufficient federalism implications to require consultations or warrant the preparation of a federalism summary impact statement. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities do not apply to this proposed rulemaking.

Executive Orders 12866 and 13563

Executive Orders 13563 and 12866 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributed impacts, and equity).

These Executive Orders stress the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. These rules have been designated ''significant regulatory actions,'' although not economically significant, under section 3(f) of Executive Order 12866. Accordingly, this proposed rule has been reviewed by the Office of Management and Budget (OMB).

Executive Order 12988

The Department of State has reviewed this proposed rulemaking in light of sections 3(a) and 3(b)(2) of Executive Order 12988 to eliminate ambiguity, minimize litigation, establish clear legal standards, and reduce burden.

Executive Order 13175

The Department of State has determined that this proposed rulemaking will not have tribal implications, will not impose substantial direct compliance costs on Indian tribal governments, and will not preempt tribal law. Accordingly, Executive Order 13175 does not apply to this proposed rulemaking.

Paperwork Reduction Act

Notwithstanding any other provision of law, no person is required to respond to, nor is subject to a penalty for failure to comply with, a collection of information, subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (PRA), unless that collection of information displays a currently valid OMB control number. This proposed rule would affect the following approved collections: (1) Statement of Registration, DS–2032, OMB No. 1405–0002; (2) Application/License for Permanent Export of Unclassified Defense Articles and Related Unclassified Technical Data, DSP–5, OMB No. 1405–0003; (3) Application/License for Temporary Import of Unclassified Defense Articles, DSP–61, OMB No. 1405–0013; (4) Nontransfer and Use Certificate, DSP–83, OMB No. 1405–0021; (5) Application/License for Permanent/Temporary Export or Temporary Import of Classified Defense Articles and Classified Technical Data, DSP–85, OMB No. 1405–0022; (6) Application/License for Temporary Export of Unclassified Defense Articles, DSP–73, OMB No. 1405–0023; (7) Statement of Political Contributions, Fees, or Commissions in Connection with the Sale of Defense Articles or Services, OMB No. 1405–0025; (8) Authority to Export Defense Articles and Services Sold Under the Foreign Military Sales (FMS) Program, DSP–94, OMB No. 1405–0051; (9) Application for Amendment to License for Export or Import of Classified or Unclassified Defense Articles and Related Technical Data, DSP–6, –62, –74, –119, OMB No. 1405–0092; (10) Request for Approval of Manufacturing License Agreements, Technical Assistance Agreements, and Other Agreements, DSP–5, OMB No. 1405–0093; (11) Maintenance of Records by Registrants, OMB No. 1405–0111; (12) Annual Brokering Report, DS–4142, OMB No. 1405–0141; (13) Brokering Prior Approval (License), DS–4143, OMB No. 1405–0142; (14) Projected Sale of Major Weapons in Support of Section 25(a)(1) of the Arms Export Control Act, DS–4048, OMB No. 1405–0156; (15) Export Declaration of Defense Technical Data or Services, DS–4071, OMB No. 1405–0157; (16) Request for Commodity Jurisdiction Determination, DS–4076, OMB No. 1405–0163; (17) Request to Change End-User, End-Use, and/or Destination of Hardware, DS–6004, OMB No. 1405–0173; (18) Request for Advisory Opinion, DS–6001, OMB No. 1405–0174; (19) Voluntary Disclosure, OMB No. 1405–0179; and (20) Technology Security/Clearance Plans, Screening Records, and Non-Disclosure Agreements Pursuant to 22 CFR 126.18, OMB No. 1405–0195. The Department of State believes there will be minimal changes to these collections. The Department of State believes the combined effect of all rules to be published moving commodities from the USML to the EAR as part of the Administration's Export Control Reform would decrease the number of license applications by approximately 30,000 annually. The Department of State is looking for comments on the potential reduction in burden.

List of Subjects in Parts 120, 121, and 123

Arms and munitions, Exports.

Accordingly, for the reasons set forth above, Title 22, Chapter I, Subchapter M, parts 120, 121, and 123 are proposed to be amended as follows:

PART 120—PURPOSE AND DEFINITIONS

■ 1. The authority citation for part 120 continues to read as follows:

Authority: Secs. 2, 38, and 71, Pub. L. 90–629, 90 Stat. 744 (22 U.S.C. 2752, 2778, 2797); 22 U.S.C. 2794; E.O. 11958, 42 FR 4311; E.O. 13284, 68 FR 4075; 3 CFR, 1977 Comp. p. 79; 22 U.S.C. 2651a; Pub. L. 105–261, 112 Stat. 1920; Pub. L. 111–266.

■ 2. Section 120.29 is revised to read as follows:

§ 120.29 Missile Technology Control Regime.

(a) For purposes of this subchapter, *Missile Technology Control Regime (MTCR)* means the policy statement between the United States, the United Kingdom, the Federal Republic of Germany, France, Italy, Canada, and Japan, announced on April 16, 1987, to restrict sensitive missile-relevant transfers based on the MTCR Annex, and any amendments thereto.

(b) The term *MTCR Annex* means the MTCR Guidelines and the Equipment, Software and Technology Annex of the MTCR, and any amendments thereto.

(c) MTCR Annex items enumerated on the U.S. Munitions List shall be annotated by the parenthetical ''(MT)'' at the end of each applicable paragraph.

PART 121—THE UNITED STATES MUNITIONS LIST

■ 3. The authority citation for part 121 continues to read as follows:

Authority: Secs. 2, 38, and 71, Pub. L. 90–629, 90 Stat. 744 (22 U.S.C. 2752, 2778, 2797); E.O. 11958, 42 FR 4311; 3 CFR, 1977 Comp. p. 79; 22 U.S.C. 2651a; Pub. L. 105–261, 112 Stat. 1920.

■ 4. Section 121.1 is amended by revising paragraph (c) and U.S. Munitions List Category IV, as follows:

§ 121.1 General. The United States Munitions List.

* * * * *

(c) *Missile Technology Control Regime (MTCR) Annex.* The parenthetical ''(MT)'' indicates those defense articles that are on the MTCR Annex. *See* § 120.29 of this subchapter.

* * * * *

Category IV—Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs, and Mines

*(a) Rockets, space launch vehicles (SLVs), missiles, bombs, torpedoes, depth charges, mines, and grenades, as follows:

(1) Rockets, SLVs, and missiles capable of delivering at least a 500 kg payload to a range of at least 300 km (MT);

(2) Rockets, SLVs, and missiles capable of delivering less than a 500 kg payload to a range of at least 300 km (MT);

(3) Man-portable air defense systems (MANPADS);

(4) Anti-tank missiles and rockets;

(5) Rockets, SLVs, and missiles not meeting the criteria of paragraphs (a)(1) through (a)(4) of this category;

(6) Bombs;

(7) Torpedoes;

(8) Depth charges;

(9) Anti-personnel, anti-vehicle, or anti-armor land mines (*e.g.,* area denial devices);

(10) Anti-helicopter mines;

(11) Naval mines; or

(12) Fragmentation and high explosive hand grenades.

Note 1 to paragraph (a): ''Range'' is the maximum distance that the specified rocket system is capable of traveling in the mode of stable flight as measured by the projection of its trajectory over the surface of the Earth. The maximum capability based on the design characteristics of the system, when fully loaded with fuel or propellant, will be taken into consideration in determining range. The range for rocket systems will be determined independently of any external factors such as operational restrictions, limitations imposed by telemetry, data links, or other external constraints. For rocket systems, the range will be determined using the trajectory that maximizes range, assuming International Civil Aviation Organization (ICAO) standard atmosphere with zero wind.

Note 2 to paragraph (a): ''Payload'' is the total mass that can be carried or delivered by the specified rocket, SLV, or missile that is not used to maintain flight.

Note 3 to paragraph (a): This paragraph does not control model and high power rockets (as defined in National Fire Protection Association Code 1122) and kits thereof made of paper, wood, fiberglass, or plastic containing no substantial metal parts and designed to be flown with hobby rocket motors that are certified for consumer use. Such rockets must not contain active controls (*e.g.,* RF or GPS).

Note 4 to paragraph (a): ''Mine'' means a munition placed under, on or near the ground or other surface area and designed to be exploded by the presence, proximity or contact of a person or vehicle.

*(b) Launchers for rockets, SLVs, and missiles, as follows:

(1) Fixed launch sites and mobile launcher mechanisms for any system enumerated in paragraphs (a)(1) and (a)(2) of this category (*e.g.,* launch tables, TOW missile, MANPADS) (MT); or

(2) Fixed launch sites and mobile launcher mechanisms for any system enumerated in paragraphs (a)(3) through (a)(5) of this category (*e.g.,* launch tables, TOW missile, MANPADS).

Note 1 to paragraph (b): Launcher mechanisms for use on aircraft are controlled in Category VIII(h).

Note 2 to paragraph (b): Launcher mechanisms which have been integrated onto a vessel, ground vehicle, or aircraft are controlled in USML Categories VI, VII, and VIII, respectively.

Note 3 to paragraph (b): This paragraph does not control parts and accessories (*e.g.,* igniters, launch stands) ''specially designed'' for consumer use with model and high power rockets (as defined in National Fire Protection Association Code 1122) and kits thereof made of paper, wood, fiberglass, or plastic containing no substantial metal parts and designed to be flown with hobby rocket motors that are certified for consumer use.

(c) Apparatus and devices ''specially designed'' for the handling, control, activation, monitoring, detection, protection, discharge, or detonation of the articles enumerated in paragraphs (a) and (b) of this category (MT for those systems enumerated in paragraphs (a)(1), (a)(2), and (b)(1) of this category).

Note to paragraph (c): This paragraph includes specialized handling equipment (transporters, cranes, and lifts) ''specially designed'' to handle articles enumerated in paragraphs (a) and (b) of this category for preparation and launch from fixed and mobile sites. The equipment in this paragraph also includes ''specially designed'' robots, robot controllers, and robot end-effectors, and liquid propellant tanks ''specially designed'' for the storage or handling of the propellants controlled in USML Category V, CCL ECCNs 1C011, 1C111, and 1C608, or other liquid propellants used in the systems enumerated in paragraphs (a)(1), (a)(2), or (a)(5) of this category.

*(d) Rocket, SLV and missile power plants, as follows:

(1) Except as enumerated in paragraphs (d)(2) or (d)(3) of this category, individual rocket stages for the articles enumerated in paragraphs (a)(1), (a)(2), or (a)(5) of this category (MT for those stages usable in systems enumerated in paragraphs (a)(1) and (a)(2) of this category);

(2) Solid propellant rocket motors, hybrid or gel rocket motors, or liquid propellant rocket engines having a total impulse capacity equal to or greater than 1.1×10^6 N·s (MT);

(3) Solid propellant rocket motors, hybrid or gel rocket motors, or liquid propellant rocket engines having a total impulse capacity equal to or greater than 8.41×10^5 N·s, but less than 1.1×10^6 N·s (MT);

(4) Combined cycle, pulsejet, ramjet, or scramjet engines (MT);

(5) Air-breathing engines that operate above Mach 4 not enumerated in paragraph (d)(4) of this category;

(6) Pressure gain combustion-based propulsion systems not enumerated in paragraphs (d)(4) and (d)(5) of this category; or

(7) Rocket, SLV, and missile engines and motors, not otherwise enumerated in paragraphs (d)(1) through (d)(6) of this category, USML Category XIX, or CCL ECCN 9A619.

Note to paragraph (d): This paragraph does not control model and high power rocket motors, containing no more than 5 pounds of propellant, that are certified for U.S. consumer use as described in National Fire Protection Association Code 1125.

(e) [Reserved]

(f) [Reserved]

*(g) Non-nuclear warheads for rockets, bombs, and missiles (*e.g.,* explosive, kinetic, EMP, thermobaric, shape charge, and fuel air explosive (FAE)).

(h) Systems, subsystems, parts, components, accessories, attachments, or associated equipment, as follows:

(1) Flight control and guidance systems (including ''guidance sets'') ''specially designed'' for articles enumerated in paragraph (a) of this category (MT for those articles enumerated in paragraphs (a)(1) and (a)(2) of this category);

Note to paragraph (h)(1): A ''guidance set'' integrates the process of measuring and computing a vehicle's position and velocity (*i.e.,* navigation) with that of computing and sending commands to the vehicle's flight control systems to correct the trajectory.

(2) Seeker systems ''specially designed'' for articles enumerated in paragraph (a) of this category (*e.g.,* radiofrequency, infrared) (MT for articles enumerated in paragraphs (a)(1) and (a)(2) of this category);

(3) Kinetic kill vehicles and ''specially designed'' parts and components therefor;

(4) Missile or rocket thrust vector control systems (MT for those thrust vector control systems usable in articles enumerated in paragraph (a)(1) of this category);

(5) MANPADS grip stocks and ''specially designed'' parts and components therefor;

(6) Rocket or missile nozzles and nozzle throats, and ''specially designed'' parts and components therefor (MT for those nozzles and nozzle throats usable in systems enumerated in paragraphs (a)(1) and (a)(2) of this category);

(7) Nose tips, nose fairings, or aerospikes, and ''specially designed'' parts and components therefor (MT for those articles enumerated in paragraphs (a)(1) and (a)(2) of this category);

(8) Re-entry vehicle or warhead heat shields (MT for those re-entry vehicles and heat shields usable in systems enumerated in paragraph (a)(1) of this category);

(9) Missile and rocket safing, arming, fuzing, and firing (SAFF) components (to include target detection and proximity sensing devices) and ''specially designed'' parts therefor (MT for those safing, arming, fuzing, and firing (SAFF) components usable in systems enumerated in paragraph (a)(1) of this category);

(10) Self-destruct systems ''specially designed'' for articles enumerated in paragraph (a) of this category (MT for those articles enumerated in paragraphs (a)(1) and (a)(2) of this category);

(11) Separation mechanisms, staging mechanisms, and interstages useable for articles enumerated in paragraph (a) of this category and ''specially designed'' parts and components therefor (MT for those separation mechanisms, staging mechanisms, and interstages usable in systems enumerated in paragraph (a)(1) of this category);

(12) Post-boost vehicles (PBV) (MT);

(13) engine or motor mounts ''specially designed'' for articles enumerated in paragraphs (a) and (b) of this category (MT for those articles enumerated in paragraphs (a)(1), (a)(2), and (b)(1) of this category);

(14) Combustion chambers ''specially designed'' for articles enumerated in paragraphs (a) and (d) of this category and ''specially designed'' parts and components therefor (MT for those articles enumerated in paragraphs (a)(1), (a)(2), (b)(1), and (d)(1) through (d)(5) of this category);

(15) Injectors ''specially designed'' for articles controlled in this category (MT for those injectors ''specially designed'' which are usable in systems enumerated in paragraph (a)(1) of this category);

(16) Solid rocket motor or liquid engine igniters;

(17) Re-entry vehicles and ''specially designed'' parts and components therefor not elsewhere specified in this category (MT);

Note to paragraph (h)(17): This paragraph does not control spacecraft. For controls on spacecraft, *see* USML Category XV or CCL ECCN 9A515.

(18) ''Specially designed'' parts and components for articles controlled in paragraph (g) not elsewhere specified in this category;

(19) Penetration aids and ''specially designed'' parts and components therefor (*e.g.,* physical or electronic countermeasure suites, re-entry vehicle replicas or decoys, or submunitions);

(20) Rocket motor cases and ''specially designed'' parts and components therefor (*e.g.,* flanges, flange seals, end domes) (MT for those rocket motor cases usable in systems enumerated in paragraphs (a)(1) and (a)(2) of this category and for ''specially designed'' parts and components for hybrid rocket motors enumerated in paragraphs (d)(2) and (d)(3) of this category);

(21) Solid rocket motor liners and rocket motor insulation (MT for those solid rocket motor liners usable in systems enumerated in paragraph (a)(1) of this category or ''specially designed'' for systems enumerated in paragraph (a)(2) of this category; and rocket motor insulation usable in systems enumerated in paragraphs (a)(1) and (a)(2) of this category);

(22) Radomes, sensor windows, and antenna windows ''specially designed'' for articles enumerated in paragraph (a) of this category (MT for those radomes usable in systems enumerated in paragraph (a)(1) of this category and for any radomes, sensor windows, or antenna windows manufactured as composite structures or laminates ''specially designed'' for use in the systems and components enumerated in paragraphs (a)(1), (a)(2), (d)(1), (h)(8), (h)(9), (h)(17), or (h)(25) of this category);

(23) Payload fairings;

(24) Rocket and missile launch canisters (MT for those rocket and missile launch canisters designed or modified for systems enumerated in paragraphs (a)(1) and (a)(2) of this category;

(25) Fuzes ''specially designed'' for articles enumerated in paragraph (a) of this category (*e.g.,* proximity, contact, electronic, dispenser proximity, airburst, variable time delay, or multi-option) (MT for those fuzes usable in systems enumerated in paragraph (a)(1) of this category);

(26) Rocket and missile liquid propellant tanks (MT for those rocket and missile liquid propellant tanks usable in systems enumerated in paragraph (a)(1) of this category);

(27) Rocket and missile altimeters ''specially designed'' for use in articles enumerated in paragraph (a)(1) of this category (MT);

(28) Hydraulic, mechanical, electro-optical, or electromechanical flight control systems (including fly-by-wire systems) and attitude control equipment ''specially designed'' for use in the rockets or missiles enumerated in paragraph (a)(1) of this category (MT for these systems which have been designed or modified for those enumerated in paragraph (a)(1) of this category); or

*(29) Any part, component, accessory, attachment, equipment, or system that (MT for those articles designated as such):

(i) Is classified;

(ii) Contains classified software; or

(iii) Is being developed using classified information.

''Classified'' means classified pursuant to Executive Order 13526, or predecessor order, and a security classification guide developed pursuant thereto or equivalent, or to the corresponding classification rules of another government or intergovernmental organization.

(i) Technical data (*see* § 120.10 of this subchapter) and defense services (*see* § 120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category and classified technical data directly to items controlled in CCL ECCN 0x604 and defense services using the classified technical data. (*See* § 125.4 of this subchapter for exemptions.) (MT for technical data and defense services related to articles designated as such.)

■ 5. Section 121.2 is revised to read as follows:

§ 121.2 Interpretations of the U.S. Munitions List.

The following interpretations explain and amplify the terms used in § 121.1 of this subchapter. These interpretations have the same force as if they were a part of the U.S. Munitions List category to which they refer.

■ 6. Section 121.5 is removed and reserved, as follows:

§ 121.5 [Reserved]

■ 7. Section 121.11 is removed and reserved, as follows:

§ 121.11 [Reserved]

■ 8. Section 121.16 is removed and reserved, as follows:

§ 121.16 [Reserved]

PART 123—LICENSES FOR THE EXPORT OF DEFENSE ARTICLES

■ 9. The authority citation for part 123 continues to read as follows:

Authority: Secs. 2, 38, and 71, Pub. L. 90–629, 90 Stat. 744 (22 U.S.C. 2752, 2778, 2797); 22 U.S.C. 2753; E.O. 11958, 42 FR 4311; 3 CFR, 1977 Comp. p. 79; 22 U.S.C. 2651a; 22 U.S.C. 2776; Pub. L. 105–261, 112 Stat. 1920; Sec 1205(a), Pub. L. 107–228.

■ 10. Section 123.12 is revised to read as follows:

§ 123.12 Shipments between U.S. possessions.

An export license is not required for the shipment of defense articles between the United States, the Commonwealth of Puerto Rico, and U.S. possessions provided the shipment does not transit a foreign country (*see* § 123.13 of this subchapter). A license is required, however, for the export of defense articles from these areas to foreign countries.

Dated: January 22, 2013.

Rose E. Gottemoeller,

Acting Under Secretary, Arms Control and International Security, Department of State.

[FR Doc. 2013–01901 Filed 1–30–13; 8:45 am]

BILLING CODE 4710–25–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

25 CFR Part 30

Notice of Intent To Establish an Adequate Yearly Progress Negotiated Rulemaking Committee

AGENCY: Bureau of Indian Education, Interior.

ACTION: Notice of intent; request for comments or nominations.

SUMMARY: The Bureau of Indian Education (BIE) is announcing its intent to establish an Adequate Yearly Progress Negotiated Rulemaking Committee (Committee). The Committee will recommend revisions to the existing regulations for Adequate Yearly Progress (AYP). As required by the No Child Left Behind Act of 2001, the Secretary will select representatives of Indian tribes for the Committee from among individuals nominated by tribes whose students attend BIE-funded schools operated by either the Bureau or by the tribe through a contract or grant and who would be affected by a final rule. The BIE solicits comments on this proposal to establish the Committee, including comments on additional interests not identified in this notice of intent, and invites tribes to nominate representatives for membership on the Committee.

DATES: Submit nominations for Committee members or written comments on this notice of intent on or before March 4, 2013.

ADDRESSES: You may submit nominations for Committee members or written comments on this notice of intent by any of the following methods:

- Send comments or nominations to Ms. Sue Bement, Designated Federal Officer, Bureau of Indian Education, 1011 Indian School Road, NW., Suite 332, Albuquerque, New Mexico, 87104; email: *AYPcomments@bia.gov*; Telephone: (505) 563–5274; Fax: (505) 563–5274; or
- Hand-carry comments or use an overnight courier service. Our courier address is Manuel Lujan Jr. Building, Building II, Suite 332, 1011 Indian School Road NW., Albuquerque, New Mexico 87104.

FOR FURTHER INFORMATION CONTACT: Ms. Sue Bement, Designated Federal Officer; Telephone: (505) 563–5274; Fax: (505) 563–5281.

SUPPLEMENTARY INFORMATION:

I. Background

The No Child Left Behind Act of 2001 (Act) required States to use certain academic content standards, assessments, and a specific methodology for calculating the AYP of students (together, referred to as an ''accountability system'') to measure academic achievement. *See* 20 U.S.C. 6311. The Act's amendments to the Elementary and Secondary Education Act (ESEA) required the Bureau of Indian Affairs (BIA) to promulgate regulations through negotiated rulemaking for the accountability system to be used in Bureau-funded schools. *See* 20 U.S.C. 6316(g)(1)(A)(i); 25 U.S.C. 2017–2018.

In 2005, the BIA promulgated such regulations. *See* 70 FR 22178 (April 28, 2005). These regulations, codified at 25 CFR 30.104, require BIE to use the accountability system of the State in which a BIE-funded school is located to calculate AYP.

BIE-funded schools are located in 23 different States; and each State has its own accountability system. As a result, each State system produces student achievement data that cannot be directly compared with data from other States. For BIE, comparison is necessary to identify under-performing schools and direct resources effectively.

BIE had previously developed a method for comparing academic achievement across States despite the variances in academic standards. But now that some States have received flexibility waivers from the Department of the Education, BIE will no longer be able to use this method to effectively compare achievement. It is necessary, therefore, to revise 25 CFR part 30.

BIE has already conducted several regional meetings on the topic of accountability in BIE-funded schools. Meetings were held in Oklahoma City, OK, on July 17, 2012; Flagstaff, AZ, on July 20, 2012; Seattle, WA, on July 24, 2012; and Bismarck, ND, on July 27, 2012.

II. Statutory Provisions

The Negotiated Rulemaking Act of 1996 (NRA) (5 U.S.C. 561 *et seq.*); the Federal Advisory Committee Act (FACA) (5 U.S.C. Appendix 2); the No Child Left Behind Act (20 U.S.C. 2000 *et seq.*).

III. The Committee and Its Process

In a negotiated rulemaking, the provisions of a proposed rule are developed by a committee composed of at least one representative of the government and representatives of the interests that will be significantly affected by the rule. Decisions are made by consensus, which means unanimous concurrence among the interests represented on the Committee, unless the Committee (1) agrees to define ''consensus'' to mean a general but not unanimous concurrence, or (2) agrees upon another specified definition. 5 U.S.C. 562(2)(A) and (B).

As part of the negotiated rulemaking process, the agency has identified interests potentially affected by the rulemaking under consideration, including students enrolled at 174 BIE-funded schools, parents of such students, school administrators, tribes, and the Indian communities served by these schools. By this notice of intent, BIE is soliciting (1) comments on its proposal to form a negotiated rulemaking committee and (2) nominations for Committee members who will adequately represent the interests which are likely to be significantly affected by the proposed rule.

Following the receipt of nominations and comments, the BIE will publish in the **Federal Register** a list of persons to represent the interests which are likely to be significantly affected by the rule, and the person or persons proposed to represent the agency. Persons who will be significantly affected by the proposed rule and who believe that their interests will not be adequately represented by any person specified in the abovementioned **Federal Register** notice will be given an opportunity to apply for, or nominate another person for, membership on the negotiated rulemaking committee to represent such interests with respect to the proposed rule.

Following the second **Federal Register** notice and responses to it, the BIE expects to establish the Committee. After the Committee reaches consensus on the provisions of the proposed rule, as discussed in more detail below, the BIE will publish a proposed rule in the **Federal Register**.

Under 5 U.S.C. 563, the head of the agency is required to determine that the use of the negotiated rulemaking procedure is in the public interest.

In making such a determination, the agency head must consider certain factors. Taking these factors into account, the Secretary, through the authority delegated to the Assistant Secretary—Indian Affairs, has determined that a negotiated rulemaking is in the public interest because:

1. A rule is needed. The No Child Left Behind Act, 20 U.S.C. 2000 *et seq.,* directs the Secretary to conduct a negotiated rulemaking pursuant to the NRA. The current definition of AYP creates a fragmented accountability system that prevents the BIE from developing and implementing comprehensive school reform initiatives

in the 174 BIE-funded schools in 23 States.

2. A limited number of identifiable interests will be significantly affected by the rule. 174 BIE-funded schools, the students enrolled at these schools, school administrators, tribes, and Indian communities served by these schools will be significantly affected by this review and the recommendations made by this Committee.

3. There is a reasonable likelihood that the Committee can be convened with a balanced representation of persons who can adequately represent the interests discussed in item 2, above and who are willing to negotiate in good faith to attempt to reach a consensus on provisions of a proposed rule.

4. There is a reasonable likelihood that the Committee will reach consensus on a proposed rule within a fixed period of time.

5. The use of negotiated rulemaking will not unreasonably delay the development of a proposed rule because time limits will be placed on the negotiation. We anticipate that negotiation will expedite a proposed rule and ultimately the acceptance of a final rule.

6. The BIE is making a commitment to ensure that the Committee has sufficient resources to complete its work in a timely fashion.

7. The BIE, to the maximum extent possible and consistent with the legal obligations of the agency, will use the consensus report of the Committee as the basis for a proposed rule for public notice and comment.

IV. Negotiated Rulemaking Procedures

In compliance with FACA and NRA, the BIE will use the following procedures and guidelines for this negotiated rulemaking. The BIE may modify them in response to comments received on this notice of intent or during the negotiation process.

A. Committee Formation

The Committee will be formed and operated in full compliance with the requirements of FACA and NRA, and specifically under the guidelines of its charter.

B. Member Responsibilities

The Committee is expected to meet approximately three to five times. The meetings will be held at various locations across Indian country, and will last two to three days each. The initial meeting will be in person; some later meetings may be held by teleconference and/or web-conference. The Committee's work is expected to occur over the course of 6–12 months.

Because of the scope and complexity of the tasks at hand, committee members must be able to invest considerable time and effort in the negotiated rulemaking process. Committee members must be able to attend all committee meetings, work on committee work groups, consult with their constituencies between committee meetings, and negotiate in good faith toward a consensus on issues before the committee. Because of the complexity of the issues under consideration, as well as the need for continuity, the Secretary reserves the right to replace any member who is unable to participate in the Committee's meetings.

Responsibility for expenses is stated under 5 U.S.C. 568(c) as follows: Members of a negotiated rulemaking committee shall be responsible for their own expenses of participation in such committee, except that an agency may, in accordance with section 7(d) of the Federal Advisory Committee Act, pay for a member's reasonable travel and per diem expenses, expenses to obtain technical assistance, and a reasonable rate of compensation, if—

(1) Such member certifies a lack of adequate financial resources to participate in the Committee; and

(2) The agency determines that such member's participation in the Committee is necessary to assure an adequate representation of the member's interest.

The BIE commits to pay the reasonable travel and per diem expenses of Committee members, if appropriate under the NRA and Federal travel regulations.

C. Composition of Committee

The Secretary is seeking nominations for tribal representatives, consistent with the provisions of 25 U.S.C. 2018, to serve on the Committee, who have a demonstrated ability to communicate well with groups about the interests they will represent. The Committee cannot exceed 25 members, and the BIE prefers 15.

Tribal Committee membership must:

- Meet the Act's requirements for proportionate representation of tribes served by BIE-funded schools;
- Be selected from among individuals nominated by tribes that have students attending BIE-funded schools either operated by the Bureau or by the tribe through a contract or grant; and
- Mirror the proportionate share of students from the tribes served by the BIE-funded school system.

The Act requires the Secretary to ensure that the various interests affected by the proposed report(s) or rules be represented on the Committee. In making membership decisions, the Secretary shall consider whether the interest represented by a nominee will be affected significantly by the final products of the Committee, which may include report(s) and/or proposed regulations; whether that interest is already adequately represented by tribal nominees; and whether the potential addition would adequately represent that interest.

D. Administrative and Technical Support

The BIE will provide sufficient administrative and technical resources for the Committee to complete its work in a timely fashion. BIE, with the help of the facilitator, will prepare all agendas, provide meeting notes, and provide a final report of any issues on which the Committee reaches consensus.

E. Training and Organization

At the first meeting of the Committee, a neutral facilitator will provide training on negotiated rulemaking, interest-based negotiations, consensus-building, and team-building. In addition, at the first meeting, Committee members will make organizational decisions concerning protocols, scheduling, and facilitation of the Committee.

F. Interests Identified Through Consultation

Under Section 562 of the NRA, '''interest' means, with respect to an issue or matter, multiple parties which have a similar point of view or which are likely to be affected in a similar manner.'' We have consulted with BIE personnel, educators at BIE-schools, tribal officials, parents, teachers, administrators, and school board members of tribes served by BIE-funded schools. The BIE has determined that the interests likely to be significantly affected by this new rule include the 174 BIE-funded schools, the students enrolled at these schools, school administrators, tribes, and the Indian communities served by these schools. BIE is accepting comments identifying other interests that may be significantly affected by the final products of the Committee, which may include report(s) and/or proposed regulations, until the date listed in the DATES section of this notice of intent.

V. Request for Nominations and Comments

The BIE solicits nominations from tribes whose students attend BIE-funded schools operated either by the BIE or by the tribe through a contract or grant, to

nominate tribal representatives to serve on the Committee and tribal alternates to serve when the representative is unavailable. Based upon the proportionate share of students, some tribes similar in affiliation or geography are grouped together for one seat. It will be necessary for such nominating tribes either to co-nominate a single tribal representative to represent the multi-tribal jurisdiction or for each tribe in the multi-tribal jurisdiction to nominate a representative with the knowledge that BIE will only be able to appoint one of the nominees who will then be responsible for representing the entire multi-tribal jurisdiction on the Committee. Each nomination is expected to include a nomination for a representative and an alternate who can fulfill the obligations of membership should the representative be unable to attend. The Committee membership should reflect the diversity of tribal interests, and tribes should nominate representatives and alternates who will:

- Have knowledge of school assessments and accountability systems;
- Have relevant experience as past or present superintendents, principals, facility managers, teachers, or school board members, or possess direct experience with adequate yearly progress;
- Be able to coordinate, to the extent possible, with other tribes and schools who may not be represented on the Committee;
- Be able to represent the tribe(s) with the authority to embody tribal views, communicate with tribal constituents, and have a clear means to reach agreement on behalf of the tribe(s);
- Be able to negotiate effectively on behalf of the tribe(s) represented;
- Be able to commit the time and effort required to attend and prepare for meetings; and
- Be able to collaborate among diverse parties in a consensus-seeking process.

VI. Submitting Nominations

The Secretary will only consider nominees nominated through the process identified in this **Federal Register** notice. Nominations received in any other manner will not be considered. Nominations must include the following information about each nominee:

(1) The nominee's name, tribal affiliation, job title, major job duties, employer, business address, business telephone and fax numbers (and business email address, if applicable);

(2) The tribal interest(s) to be represented by the nominee (see section V of this notice of intent) and whether the nominee will represent other interest(s) related to this rulemaking, as the tribe may designate;

(3) A resume reflecting the nominee's qualifications and experience in Indian education (which may include being a parent of a student attending a BIE-funded school); and

(4) A brief description of how they will represent tribal views, communicate with tribal constituents, and have a clear means to reach agreement on behalf of the tribe(s) they are representing.

Additionally, a statement whether the nominee is only representing one tribe's views or whether the expectation is that the nominee represents a specific group of tribes.

To be considered, nominations must be received by the close of business on the date listed in the **DATES** section, at the location indicated in the **ADDRESSES** section.

Certification

For the above reasons, I hereby certify that the Adequate Yearly Progress Negotiated Rulemaking Committee is in the public interest.

Dated: January 22, 2013.

Kevin K. Washburn,

Assistant Secretary, Indian Affairs.

[FR Doc. 2013–01957 Filed 1–30–13; 8:45 am]

BILLING CODE 4310–6W–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG–140649–11]

RIN 1545–BK65

Failure To File Gain Recognition Agreements and Other Required Filings

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice of proposed rulemaking.

SUMMARY: This document contains proposed regulations that would amend the existing rules governing the consequences to U.S. persons for failing to file gain recognition agreements (GRAs) and related documents, or to satisfy other reporting obligations, associated with certain transfers of property to foreign corporations in nonrecognition exchanges. These regulations affect U.S. persons that transfer property to foreign corporations.

DATES: Written or electronic comments and requests for a public hearing must be received by April 1, 2013.

ADDRESSES: Send submissions to CC:PA:LPD:PR (REG–140649–11), room 5203, Internal Revenue Service, P.O. Box 7604, Ben Franklin Station, Washington, DC 20044. Submissions may be hand-delivered Monday through Friday between the hours of 8 a.m. and 4 p.m. to CC:PA:LPD:PR (REG–140649–11), Courier's Desk, Internal Revenue Service, 1111 Constitution Avenue NW., Washington, DC 20224, or sent electronically via the Federal Rulemaking Portal at *http://www.regulations.gov* (IRS REG–140649–11).

FOR FURTHER INFORMATION CONTACT: Concerning the proposed regulations, Mary W. Lyons, (202) 622–3860; concerning submission of comments and to request a hearing, Oluwafunmilayo (Funmi) Taylor, (202) 622–7180 (not toll-free numbers).

SUPPLEMENTARY INFORMATION:

Paperwork Reduction Act

The collections of information contained in the regulations have been reviewed and approved by the Office of Management and Budget in accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) under control number 1545–1487.

The collections of information are in §§ 1.367(a)–3(f)(2), 1.367(a)–8(p)(2), 1.367(e)–2(f)(2), 1.6038B–1(c)(4)(ii), and 1.6038B–1(e)(4). The collections of information are mandatory. The likely respondents are domestic corporations.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid control number.

Books and records relating to a collection of information must be retained as long as their contents might become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Background

A. Sections 367(a) and 6038B

Section 367(a)(1) provides that if, in connection with any exchange described in section 332, 351, 354, 356, or 361, a United States person (U.S. transferor) transfers property to a foreign corporation (transferee foreign corporation), the transferee foreign corporation shall not, for purposes of determining the extent to which gain shall be recognized on such transfer, be considered to be a corporation. Sections

367(a)(2), (3), and (6) provide exceptions to the general rule of section 367(a)(1) and grant regulatory authority to the Secretary to provide additional exceptions and to limit the statutory exceptions.

Section 1.367(a)–3 provides exceptions to the general rule of section 367(a)(1) for certain transfers by a U.S. transferor of stock or securities to a foreign corporation. In some cases, these exceptions require the U.S. transferor to file a GRA and other related documents under the provisions of § 1.367(a)–8 (section 367(a) GRA regulations) in order to avoid the recognition of gain under section 367(a)(1). See § 1.367(a)–3(b), (c), and (e) (addressing transfers of foreign stock or securities, transfers of domestic stock or securities, and transfers in certain section 361 exchanges, respectively). Under the terms of a GRA, the U.S. transferor agrees to include in income the gain realized but not recognized on the initial transfer of the stock or securities and pay interest on any additional tax due if a gain recognition event, as defined in § 1.367(a)–8(b)(1)(iv), occurs during the term of the GRA (generally 60 months following the close of the taxable year in which the initial transfer occurs). See § 1.367(a)–8(c)(1)(i) and (v).

One of the gain recognition events enumerated is a failure to comply in any material respect with any requirement of the section 367(a) GRA regulations or with the terms of an existing GRA (failure to comply). See § 1.367(a)–8(j)(8). An example of such a failure to comply is the failure to file an annual certification. The section 367(a) GRA regulations provide that if there is a failure to comply, the U.S. transferor must recognize the full amount of gain realized on the initial transfer of stock or securities unless the U.S. transferor demonstrates that the failure was due to reasonable cause and not willful neglect under the procedure that is described in § 1.367(a)–8(p). Similarly, if there is a failure to timely file a GRA in connection with the initial transfer, the U.S. transferor must recognize gain with respect to the transfer unless the reasonable cause exception is satisfied.

In addition to the section 367(a) GRA regulations, other regulations under section 367(a) require certain other statements to be filed in connection with a transfer of stock or securities by a U.S. person to a foreign corporation. A domestic target corporation in certain cases must file statements in connection with the transfer by its shareholders or security holders of stock or securities in the domestic target corporation to a foreign corporation under § 1.367(a)–3(c). See § 1.367(a)–3(c)(6) and (7). Also, a domestic target corporation must file a statement when its assets are transferred to a foreign acquiring corporation in a section 361 exchange and all or a portion of those assets are subsequently transferred to a domestic subsidiary of the foreign acquiring corporation in a transaction treated as an indirect stock transfer under § 1.367(a)–3(d). See § 1.367(a)–3(d)(2)(vi)(B)(*1*)(*ii*).

In addition, a U.S. person who transfers certain property to a foreign corporation in certain nonrecognition transactions is subject to the reporting requirements of section 6038B and the regulations. See §§ 1.6038B–1 and –1T. In general, the U.S. transferor must file IRS Form 926 ''Return by a U.S. Transferor of Property to a Foreign Corporation,'' identifying the transferee foreign corporation and describing the property transferred. The penalty for failure to satisfy the section 6038B reporting requirement is equal to ten percent of the fair market value of the property at the time of the exchange, but not to exceed $100,000 unless the failure was due to intentional disregard of the reporting obligation. If, however, the U.S. transferor demonstrates that the failure was due to reasonable cause and not willful neglect, no penalty is imposed.

Section 1.6038B–1T(c)(4)(ii) provides that if stock or securities are transferred, the U.S. transferor must provide information about the stock or securities on Form 926. Section 1.6038B–1(f)(2)(i) provides that a failure to comply with the reporting requirements of the regulations includes the failure to provide material information about the property transferred. Thus, the failure to provide the required information about the stock or securities transferred could result in a section 6038B penalty. The current section 6038B regulations have a rule coordinating the obligations to file a GRA and complete Form 926. Specifically, § 1.6038B–1(b)(2) relieves a U.S. transferor of the obligation to report a transfer of stock or securities on Form 926 and from the section 6038B penalty if the U.S transferor has properly filed a GRA.

On the other hand, a U.S. transferor who transfers stock or securities for which a GRA must be properly filed to avoid recognizing gain under section 367(a)(1) and who neither properly files a GRA nor a Form 926 with respect to the transfer is potentially subject both to the penalty under section 6038B and full gain recognition under section 367(a)(1). Both of these provisions have a reasonable cause exception for a failure to file, and a U.S. transferor who cannot establish reasonable cause is subject to both provisions.

The Deficit Reduction Act of 1984 (1984 Act) (Public Law 98–369, 98 Stat 494 (1984)) amended section 367(a) and enacted section 6038B. The legislative history to the 1984 Act indicates that Congress intended sections 367 and 6038B to operate in tandem, with section 6038B serving as a notification requirement for transfers under section 367(a). H.R. Rep. No. 432, Pt. 2, 98th Cong., 2d Sess., March 5, 1984 at 1325; S. Rep. No. 169, Vol. 1, 98th Cong., 2d Sess., Apr. 2, 1984 at 370.

Temporary regulations were published on May 16, 1986 (TD 8087, 1986–1 CB 175, 51 FR 17936), addressing GRAs and reporting under section 6038B (1986 temporary regulations). The 1986 temporary regulations imposed both full gain recognition under section 367(a)(1) for failure to comply with the regulations under section 367(a) as well as the penalty under section 6038B for failure to comply with the section 6038B reporting requirements. Both rules have been retained in later-issued guidance under sections 367(a) and 6038B.

In addition, the current final regulations under § 1.367(a)–8(p)(1) allow a U.S. transferor to obtain relief from gain recognition caused by a failure to file a GRA or a failure to comply in any material respect with the regulations by requesting relief and establishing that a failure to file or comply was due to reasonable cause and not willful neglect. When a U.S. transferor requests relief from full gain recognition under this section, the regulations provide that the appropriate IRS examination official (Director) shall notify the U.S. transferor in writing if it is determined that the U.S. transferor's failure was not due to reasonable cause, or if additional time will be needed to make a determination. This notification is to be made within the 120-day period that begins on the date that the IRS notifies the U.S. transferor in writing that its request for relief has been received and assigned for review. If the U.S. transferor is not so notified before the close of this 120-day period, the U.S. transferor is deemed to have established that the failure to file or failure to comply was due to reasonable cause and not willful neglect.

B. Section 367(e)(2)

Section 367(e)(2) provides generally that in a liquidation to which section 332 applies, except as provided in regulations, subsections (a) and (b)(1) of section 337 shall not apply when the 80-percent distributee (as defined in section 337(c)) is a foreign corporation.

As a result, if a domestic liquidating corporation liquidates into a foreign parent corporation (an outbound liquidation), or if a foreign liquidating corporation liquidates into a foreign parent corporation (a foreign-to-foreign liquidation), the liquidating corporation generally must recognize gain or loss on the distribution as if such property were sold to the distributee at its fair market value. Section 1.367(e)–2(b)(1) provides that a domestic liquidating corporation must recognize gain or loss on an outbound liquidation, subject to an overall loss limitation, except to the extent it satisfies one of the exceptions provided under § 1.367(e)–2(b)(2). These exceptions are for distributions of: (i) Property used in the conduct of a trade or business in the United States (a U.S. trade or business); (ii) a U.S. real property interest; or (iii) stock of a domestic subsidiary corporation that is at least 80-percent owned by the domestic liquidating corporation.

The regulations also address foreign-to-foreign liquidations and provide that a foreign liquidating corporation generally is not required to recognize gain or loss on the distribution, except in the case of certain distributions of property used in a U.S. trade or business or formerly used in a U.S. trade or business. See § 1.367(e)–2(c).

Other than the exception for a distribution of a U.S. real property interest, the exceptions provided under § 1.367(e)–2 require the filing of certain statements or schedules by the liquidating corporation and the distributee corporation. In addition, a domestic liquidating corporation that distributes property to a foreign corporation in a transaction subject to section 367(e)(2) must file a Form 926 with respect to the distribution. See § 1.6038B–1(e).

Explanation of Provisions

A. Proposed Amendments to the Section 367(a) GRA Regulations

Under current law, if a U.S. transferor fails to timely file an initial GRA, or fails to comply in any material respect with the section 367(a) GRA regulations with respect to an existing GRA (for example, because it fails to timely file an annual certification), the U.S. transferor is subject to full gain recognition under section 367(a)(1) unless the U.S. transferor later discovers the failure, promptly files the GRA or other required information with the IRS, and demonstrates that its failure was due to reasonable cause and not willful neglect. The existing reasonable cause standard, given its interpretation under the case law, may not be satisfied by U.S. transferors in many common situations even though the failure was not intentional and not due to willful neglect. Based on the current operation of the section 367(a) GRA regulations, the Internal Revenue Service (IRS) and the Department of the Treasury (Treasury Department) believe that full gain recognition under section 367(a)(1) should apply only if a failure to timely file an initial GRA or a failure to comply with the section 367(a) GRA regulations with respect to an existing GRA is willful. The IRS and the Treasury Department believe that the penalty imposed by section 6038B generally should be sufficient to encourage proper reporting and compliance.

Accordingly, the proposed regulations would revise the section 367(a) GRA regulations to provide that a U.S. transferor seeking either to (i) avoid recognizing gain under section 367(a)(1) on the initial transfer as a result of a failure to timely file an initial GRA, or (ii) avoid triggering gain as a result of a failure to comply in all material respects with the section 367(a) GRA regulations or the terms of an existing GRA, must demonstrate that the failure was not a willful failure. For this purpose, willful is to be interpreted consistent with the meaning of that term in the context of other civil penalties (for example, section 6672), which would include a failure due to gross negligence, reckless disregard, or willful neglect.

Whether a failure is willful will be determined based on all the relevant facts and circumstances. The proposed regulations illustrate the application of this standard through a series of examples. For example, the section 367(a) GRA regulations require a GRA to include information about the adjusted basis and fair market value of the property transferred. Filing a GRA and intentionally not providing such information, including noting on the GRA that this information is ''available upon request,'' would be a willful failure.

In addition, the proposed regulations modify the process through which requests for relief from a failure to file or a failure to comply are evaluated by eliminating the requirement for the IRS to respond to such relief requests within 120 days. While the IRS is committed to processing requests promptly, the IRS and the Treasury Department do not believe that the IRS's processing time with respect to a relief request should be determinative of whether a U.S. transferor has satisfied its obligations under the section 367(a) GRA regulations.

The proposed regulations also provide guidance clarifying when an initial GRA is considered timely filed, and what gives rise to a failure to comply in any material respect with the requirements of the section 367(a) GRA regulations or the terms of an existing GRA. In general, an initial GRA is timely filed only if each document that is required to be filed as part of an initial GRA is timely filed and completed in all material respects. Similarly, in general, there is a failure to comply in a material respect with the section 367(a) GRA regulations or the terms of an existing GRA if a document (such as an annual certification) that is required to be filed is not timely filed, or is not completed in all material respects. The examples provided in the proposed regulations also illustrate the application of the ''completed in all material respects'' requirement of the current final regulations.

The proposed regulations also clarify that the section 6038B penalty will apply to a failure to comply in any material respect with the section 367(a) GRA regulations or the terms of an existing GRA, such as a failure to properly file a gain recognition agreement document (including an annual certification or new GRA). Under the proposed regulations, a failure to comply has the same meaning for purposes of the section 367(a) GRA regulations and the section 6038B regulations; however, the current reasonable cause standard continues to apply to U.S. transferors seeking relief from the section 6038B penalty.

In addition, the section 6038B penalty continues to apply, as provided under the current section 6038B regulations, if both a Form 926 is not filed with respect to the initial transfer and there is a failure to file an initial GRA. In this case, the current reasonable cause standard continues to apply to U.S. transferors seeking relief from the section 6038B penalty.

The proposed regulations modify the information that must be reported with respect to a transfer of stock or securities on Form 926. Specifically, the U.S. transferor must include on Form 926 the basis and fair market value of the property transferred. Finally, the proposed regulations require that a Form 926 be filed in all cases in which a GRA is filed, but provide that only Part I and Part II of the Form 926 must be completed if the only asset transferred is stock or securities.

B. Proposed Amendments to the Section 367(e)(2) Regulations

The section 367(e)(2) regulations governing liquidating distributions to foreign parent corporations contain several rules that condition

nonrecognition treatment upon the timely filing of statements or other documents, or complying with the requirements of those regulations. These documents are functionally similar to GRAs in certain respects. The current section 367(e)(2) regulations provide no explicit guidance regarding the treatment of taxpayers who fail to file these documents or report the required information, and also provide no mechanism to obtain relief for such failures. As discussed in this preamble, the section 6038B regulations also require that a Form 926 be filed with respect to liquidating distributions by a domestic corporation to a foreign parent corporation.

The IRS and the Treasury Department believe that the changes made by the proposed regulations in the case of section 367(a) transfers are also appropriate for failures to file or failures to comply for purposes of the section 367(e)(2) regulations and the related section 6038B regulations. Accordingly, the proposed regulations provide rules similar to the rules under the section 367(a) GRA regulations and related section 6038B regulations for failures to file the required documents or statements and failures to comply under the section 367(e)(2) regulations and related section 6038B regulations. Finally, the proposed regulations modify the information that must be reported with respect to one or more liquidating distributions of property, including the addition of the requirement to report the basis and fair market value of the property distributed.

C. Other Reporting Under Section 1.367(a)–3

The section 367(a) regulations currently do not address a taxpayer's failure to file certain other statements required under § 1.367(a)–3 in connection with certain transfers of stock or securities. These include the statements required to be filed by a domestic target corporation in connection with a transfer of stock or securities of such corporation to a foreign corporation as described in §§ 1.367(a)–3(c)(6) and (7), and the statement required to be filed by a domestic target corporation in connection with the transfer of its assets to a foreign corporation in an exchange described in section 361 and the subsequent transfer of those assets to a domestic subsidiary in a transaction described in § 1.367(a)–3(d)(2)(vi)(B)(*1*)(*ii*). The IRS and the Treasury Department believe that failures to timely file these statements or failures to comply in all material respects with these regulations should be treated similarly to failures to file or failures to comply with the section 367(a) GRA regulations. Accordingly, these proposed regulations incorporate similar rules with respect to these other filing obligations.

Proposed Effective/Applicability Date

These regulations are proposed to apply with respect to documents or statements required under the section 367(a) GRA regulations, § 1.367(a)–3(c) or (d) of the regulations, or the section 367(e) regulations that are required to be filed with a timely filed return on or after the date that final regulations are published in the **Federal Register**, as well as with respect to any requests for relief for failures to file documents and statements required under these regulations, or failures to comply, if such requests are submitted on or after the date that final regulations are published in the **Federal Register**.

Special Analyses

It has been determined that this proposed regulation is not a significant regulatory action as defined in Executive Order 12866, as supplemented by Executive Order 13563. Therefore, a regulatory assessment is not required. It also has been determined that section 553(b) of the Administrative Procedure Act (5 U.S.C. chapter 5) does not apply to these regulations. It is hereby certified that these regulations will not have a significant impact on a substantial number of small entities. This certification is based on the fact that these regulations merely provide for a change in the standard, or clarify or provide the standard, that will be used to determine whether a taxpayer that has failed to file, or comply with the terms of, a gain recognition agreement or other related document, a § 1.367(a)–3 statement, or a document or statement required under § 1.367(e)–2 will be entitled to avoid full gain recognition under section 367(a)(1) or 367(e)(2), as applicable. Accordingly a Regulatory Flexibility Analysis under the Regulatory Flexibility Act (5 U.S.C. chapter 6) is not required. Pursuant to section 7805(f) of the Code, these regulations have been submitted to the Chief Counsel for Advocacy of the Small Business Administration for comment on their impact on small business.

Comments and Requests for Public Hearing

Before these proposed regulations are adopted as final regulations, consideration will be given to any written comments (a signed original and eight (8) copies) or electronic comments that are submitted timely to the IRS. The IRS and the Treasury Department request comments on the clarity of the proposed regulations and how they may be made easier to understand. All comments will be available for public inspection and copying. A public hearing may be scheduled if requested in writing by any person who timely submits written or electronic comments. If a public hearing is scheduled, notice of the date, time, and place of the hearing will be published in the **Federal Register**.

Drafting Information

The principal author of these proposed regulations is Mary W. Lyons of the Office of Associate Chief Counsel (International). However, other personnel from the IRS and the Treasury Department participated in their development.

List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

Proposed Amendments to the Regulations

Accordingly, 26 CFR part 1 is proposed to be amended as follows:

PART 1—INCOME TAXES

■ **Paragraph 1.** The authority citation for part 1 continues to read in part as follows:

Authority: 26 U.S.C. 7805 * * *

■ **Par. 2.** Section 1.367(a)–3 is amended:

■ 1. By revising paragraph (c)(6)(ii).

■ 2. In paragraph (d)(2)(vi)(B)(*1*)(*ii*) by removing the language ''its U.S. income tax return'' and adding the language ''its timely filed U.S. income tax return'' in its place.

■ 3. By adding paragraph (f).

■ 4. By adding paragraph (g)(1)(ix).

The additions and revisions read as follows:

§ 1.367(a)–3. Treatment of transfers of stock or securities to foreign corporations.

* * * * *

(c) * * *

(6) * * *

(ii) Except as provided in paragraph (f) of this section, for purposes of this paragraph (c)(6), an income tax return will be considered timely filed if such return is filed, together with the statement required by this paragraph (c)(6), on or before the last date for filing a Federal income tax return (taking into account any extensions of time therefor) for the taxable year in which the transfer occurs.

* * * * *

(f) *Failure to file statements*—(1) *Consequences of a failure to file.* Except as provided in paragraph (f)(2) of this section, if there is a failure to file a statement described in paragraph (c)(6), (c)(7), or (d)(2)(vi)(C) of this section, then the exceptions to the application of section 367(a)(1) provided in paragraphs (c) and (d)(2)(vi)(B)(*1*)(*ii*) of this section will not apply. For this purpose, there is a failure to file the statement if the statement is not filed with a timely filed return or is not completed in all material respects.

(2) *Relief for certain failures to file that are not willful*—(i) *In general.* A failure to file described in paragraph (f)(1) of this section will be deemed not to have occurred for purposes of satisfying the requirements of the applicable regulation if the taxpayer is able to demonstrate that the failure was not willful using the procedure set forth in this paragraph (f)(2). For this purpose, willful is to be interpreted consistent with the meaning of that term in the context of other civil penalties, which would include a failure due to gross negligence, reckless disregard, or willful neglect. Whether a failure to file was a willful failure will be determined by the Director of Field Operations International, Large Business & International (or any successor to the roles and responsibilities of such position, as appropriate) (Director) based on all the facts and circumstances.

The taxpayer shall submit a request for relief and an explanation as provided in paragraph (f)(2)(ii) of this section. Although a taxpayer whose failure to file is determined not to be willful will avoid gain recognition under this section, the taxpayer will be subject to a penalty under section 6038B if the taxpayer fails to satisfy the reporting requirements, if any, under that section and does not demonstrate that the failure was due to reasonable cause and not willful neglect. See § 1.6038B–1(f). The determination of whether the failure to file was willful under this section has no effect on any request for relief made under § 1.6038B–1(f).

(ii) *Time of submission.* A taxpayer's statement that the failure to file was not willful will be considered only if, promptly after the taxpayer becomes aware of the failure, an amended return is filed for the taxable year to which the failure relates that includes the required statement and a written statement explaining the reasons for the failure. The amended return must be filed with the applicable Internal Revenue Service Center with which the taxpayer filed its original return for such taxable year. The taxpayer may also submit a request for relief from the penalty of section 6038B as part of the same submission.

(iii) *Notice requirement.* In addition to the requirements of paragraph (f)(2)(ii) of this section, the taxpayer must comply with the notice requirements of this paragraph (f)(2)(iii). If any taxable year of the taxpayer is under examination when the amended return is filed, a copy of the amended return and any information required to be included with such return must be delivered to the Internal Revenue Service personnel conducting the examination. If no taxable year of the taxpayer is under examination when the amended return is filed, a copy of the amended return and any information required to be included with such return must be delivered to the Director.

(3) For illustrations of the application of the willfulness standard, see the examples in § 1.367(a)–8(p)(3).

(g) * * *

(1) * * *

(ix) Paragraphs (c)(6)(ii), (d)(2)(vi)(B)(*1*)(*ii*) and (f) of this section will apply to statements that are required to be filed with a timely filed U.S. income tax return on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**, as well as to any requests for relief for failures to file statements, if such requests are submitted on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**.

* * * * *

■ **Par. 3.** Section 1.367(a)–8 is amended:

■ 1. By revising the eleventh sentence of paragraph (a).

■ 2. In paragraph (b)(1) by

■ a. Redesignating definitions (xii) through (xv) as (xiv) through (xvii).

■ b. Redesignating definition (xi) as (xiii).

■ c. Redesignating definitions (v) through (x) as (vii) through (xii).

■ d. Redesignating definition (iv) as (v).

■ e. Adding new definitions (iv) and (vi).

■ f. Revising redesignated definitions (xiii), (xiv), and (xv).

■ 3. By revising paragraph (d)(1).

■ 4. By revising paragraph (j)(8).

■ 5. By revising paragraph (p).

■ 6. By adding a sentence at the end of paragraph (r)(1)(i).

The revisions and addition read as follows:

§ 1.367(a)-8 Gain recognition agreement requirements—(a) Scope. * * * Paragraph (p) of this section provides relief for certain failures to file an initial gain recognition agreement or to comply with the requirements of this section with respect to an existing gain recognition agreement. * * *

(b) * * *

(1) * * *

(iv) A *gain recognition agreement document* means any agreement, statement, schedule, or form required to be filed under this section, including an initial gain recognition agreement, a new gain recognition agreement described in paragraph (c)(5) of this section, a Form 8838 extending the period of limitations on assessment of tax described in paragraph (f) of this section, and an annual certification described in paragraph (g) of this section.

* * * * *

(vi) An *initial gain recognition agreement* means the gain recognition agreement entered into under paragraph (c) of this section with respect to the initial transfer.

* * * * *

(xiii) A *timely filed return* is a Federal income tax return filed by the due date set forth in section 6072(a) or (b), plus any extension of time to file such return granted under section 6081.

(xiv) *Transferee foreign corporation.* Except as provided in this paragraph (b)(1)(xiv), the *transferee foreign corporation* is the foreign corporation to which the transferred stock or securities are transferred in an initial transfer. In the case of an indirect stock transfer, the transferee foreign corporation has the meaning set forth in § 1.367(a)-3(d)(2)(i). The transferee foreign corporation also includes a corporation designated as the transferee foreign corporation in the case of a new gain recognition agreement entered into under this section.

(xv) *Transferred corporation.* Except as provided in this paragraph (b)(1)(xv), the *transferred corporation* is the corporation the stock or securities of which are transferred in the initial transfer. In the case of an indirect stock transfer, the transferred corporation has the meaning set forth in § 1.367(a)-3(d)(2)(ii). The transferred corporation also includes a corporation designated as the transferred corporation in the case of a new gain recognition agreement entered into under this section.

* * * * *

(d) *Filing requirements*—(1) *General rule.* An initial gain recognition agreement must be timely filed in order for the U.S. transferor to avoid

recognizing gain under section 367(a)(1) with respect to the transferred stock or securities by reason of the applicable exceptions provided under § 1.367(a)-3. Except as provided in paragraph (p) of this section, an initial gain recognition agreement is timely filed only if—

(i) The initial gain recognition agreement and any other gain recognition agreement document required to be filed with the initial gain recognition agreement are included with a timely filed return of the U.S. transferor for the taxable year during which the initial transfer occurs; and

(ii) Each gain recognition agreement document identified in paragraph (d)(1)(i) of this section is completed in all material respects.

* * * * *

(j) * * *

(8) *Failure to comply.* A U.S. transferor fails to comply in any material respect with any requirement of this section, or the terms of the gain recognition agreement as described in paragraph (c)(1) of this section. A failure to comply under this paragraph (j)(8) will extend the period of limitations on assessment of tax until the close of the third full taxable year ending after the date on which the Director of Field Operations International, Large Business & International (or any successor to the roles and responsibilities of such person) (Director) receives actual notice of the failure to comply from the U.S. transferor. Except as provided in paragraph (p) of this section, for purposes of this paragraph (j)(8), a failure to comply includes—

(i) If there is a gain recognition event in a taxable year, a failure to report gain or pay any additional tax or interest due under the terms of the gain recognition agreement; and

(ii) A failure to file a gain recognition agreement document, other than an initial gain recognition agreement or a document required to be filed with the initial gain recognition agreement. For this purpose, there is a failure to file a gain recognition agreement document if—

(A) The gain recognition agreement document is not timely filed as required under this section, or

(B) The gain recognition agreement document is not completed in all material respects.

* * * * *

(p) *Relief for certain failures to file or failures to comply that are not willful*—(1) *In general.* This paragraph (p) provides relief if there is a failure to file an initial gain recognition agreement as required under paragraph (d)(1) of this section (failure to file), or a failure to comply that is a triggering event under paragraph (j)(8) of this section (failure to comply). A failure to file or failure to comply will be deemed not to have occurred for purposes of paragraph (d)(1) of this section or paragraph (j)(8) of this section if the U.S. transferor is able to demonstrate that the failure was not willful using the procedure set forth in this paragraph (p). For this purpose, willful is to be interpreted consistent with the meaning of that term in the context of other civil penalties, which would include a failure due to gross negligence, reckless disregard, or willful neglect. Whether a failure to file or failure to comply was willful will be determined by the Director based on all the facts and circumstances.

The taxpayer shall submit a request for relief and an explanation as provided in paragraph (p)(2)(i) of this section. Although a U.S. transferor whose failure to file or failure to comply, as applicable, is determined not to be willful will avoid gain recognition under paragraph (b), (c), or (e) of § 1.367(a)–3, or paragraph (c)(1) of this section, as applicable, the U.S. transferor will be subject to a penalty under section 6038B if the U.S. transferor fails to satisfy the reporting requirements under that section and does not demonstrate that the failure was due to reasonable cause and not willful neglect. See § 1.6038B–1(b)(2) and (f). The determination of whether the failure to file or failure to comply was willful under this section has no effect on any request for relief made under § 1.6038B–1(f).

(2) *Procedures for establishing that a failure to file or failure to comply was not willful*—(i) *Time of submission.* A U.S. transferor's statement that a failure to file or failure to comply was not willful will be considered only if, promptly after the U.S. transferor becomes aware of the failure, an amended return is filed for the taxable year to which the failure relates that includes the information that should have been included with the original return for such taxable year or that otherwise complies with the rules of this section, and that includes a written statement explaining the reasons for the failure to file or failure to comply. The U.S. transferor must file, with the amended return, a Form 8838 extending the period of limitations on assessment of tax with respect to the gain realized but not recognized on the initial transfer to the later of (1) the close of the eighth full taxable year following the taxable year during which the initial transfer occurred, or (2) three years from the date the required information is provided to the IRS. The amended return and Form 8838 must be filed with the applicable Internal Revenue Service Center with which the U.S. transferor filed its original return for such taxable year. The U.S. transferor may submit a request for relief from the penalty under section 6038B as part of the same submission. See § 1.6038B–1(f).

(ii) *Notice requirement.* In addition to the requirements of paragraph (p)(2)(i) of this section, the U.S. transferor must comply with the notice requirements of this paragraph (p)(2)(ii). If any taxable year of the U.S. transferor is under examination when the amended return is filed, a copy of the amended return and any information required to be included with such return must be delivered to the Internal Revenue Service personnel conducting the examination. If no taxable year of the U.S. transferor is under examination when the amended return is filed, a copy of the amended return and any information required to be included with such return must be delivered to the Director.

(3) *Examples.* The following examples illustrate the application of this paragraph (p). All of the examples are based solely on the following facts and any additional facts stated in the particular example. DC, a domestic corporation, wholly owns FS and FA, each a foreign corporation. In Year 1, pursuant to a transaction qualifying both as a reorganization under section 368(a)(1)(B) and an exchange under section 351, DC transferred all the FS stock to FA solely in exchange for voting stock of FA (FS Transfer). The fair market value of the FS stock exceeded DC's tax basis in the stock. Absent the application of section 367 to the transaction, DC's exchange of the FS stock for the stock of FA qualified as a tax-free exchange under section 354. Immediately after the transaction, both FA and FS were controlled foreign corporations (as defined in section 957). Furthermore, DC was a section 1248 shareholder (as defined in § 1.367(b)–2(b)) with respect to FA and FS, and a 5-percent shareholder with respect to FA for purposes of § 1.367(a)–3(b)(ii). Thus, DC was required to recognize gain under section 367(a)(1) by reason of the FS Transfer unless DC timely filed an initial gain recognition agreement (GRA) as required by paragraph (d)(1) of this section and complied in all material respects with the requirements of this section throughout the term of the GRA. The application of section 6038B is not addressed in these examples. DC may be subject to a penalty under section 6038B even if DC demonstrates under this section that a failure to file or failure to

comply was not willful. See §§ 1.6038B–1(b) and (f) for the application of section 6038B.

Example 1. Taxpayer failed to file a GRA due to accidental oversight. (i) *Additional facts.* DC filed its tax return for the year of the FS Transfer, reporting no gain with respect to the exchange of the FS stock. DC, through its tax department, was aware of the requirement to file a GRA in order for DC to avoid recognizing gain with respect to the FS Transfer under section 367(a)(1), and had the experience and competency to properly prepare the GRA. DC had filed many GRAs over the years and had never failed to timely file a GRA. However, although DC prepared the GRA with respect to the FS Transfer, it was not filed with DC's tax return for the year of the FS Transfer due to an accidental oversight. During the preparation of the following year's tax return, DC discovered that the GRA was not filed. DC filed an amended return to file the GRA and complied with the procedures set forth under paragraph (p)(2) of this section promptly after it became aware of the failure.

(ii) *Result.* Because DC failed to file a GRA with its timely filed tax return for the year of the FS Transfer, there is a failure to timely file the GRA as required by paragraph (d)(1) of this section. However, based on the facts of this *Example 1,* including that the failure to timely file the GRA was an isolated oversight, the failure to timely file is not a willful failure to file. Accordingly, the timely filed requirement of paragraph (d)(1) of this section is considered to be satisfied, and DC is not required to recognize the gain realized on the FS Transfer under section 367(a)(1).

Example 2. Taxpayer's course of conduct is taken into account in determination. (i) *Additional facts.* DC filed its tax return for the year of the FS Transfer, reporting no gain with respect to the exchange of the FS stock, but failed to file a GRA. DC, through its tax department, was aware of the requirement to file a GRA in order for DC to avoid recognizing gain with respect to the FS Transfer under section 367(a)(1). DC had not consistently and in a timely manner filed GRAs in the past, and also had an established history of failing to timely file other tax and information returns for which it was subject to penalties. In a year subsequent to Year 1, DC transferred stock of another foreign subsidiary with respect to which DC had a built-in gain (FS2) to FA in a transaction that qualified as both a reorganization under section 368(a)(1)(B) and an exchange described under section 351 (FS2 Transfer). DC was required to recognize gain on the FS2 Transfer under section 367(a)(1) unless DC timely filed a GRA as required by paragraph (d)(1) of this section and complied with the requirements of this section during the term of the GRA. DC reported no gain on the FS2 Transfer on its tax return, but failed to file a GRA. At the time of the FS2 Transfer, DC was already aware of its failure to file the GRA required for the prior FS Transfer, but had not implemented any safeguards to ensure that it would timely file GRAs for future transactions. DC filed an amended return to file the GRA for the FS2 Transfer and complied with the procedures set forth under paragraph (p)(2) of this section promptly after it became aware of the failure. DC asserts that its failure to timely file a GRA with respect to the FS2 Transfer was due to an isolated oversight similar to the one that occurred with respect to the FS Transfer. At issue is DC's failure to timely file a GRA for the FS2 Transfer.

(ii) *Result.* Because DC failed to file a GRA with its timely filed tax return for the year of the FS2 Transfer, there is a failure to timely file the GRA as required by paragraph (d)(1) of this section. DC's course of conduct is taken into account in determining whether its failure to timely file a GRA for the FS2 Transfer was willful. Based on the facts of this *Example 2,* including DC's history of failing to file required tax and information returns in general and GRAs in particular, and its failure to implement safeguards to ensure that it would timely file GRAs, the failure to timely file a GRA with respect to the FS2 Transfer rises to the level of a willful failure to timely file. Accordingly, the timely filed requirement of paragraph (d)(1) of this section is not satisfied, and DC must recognize the full amount of the gain realized on the FS2 Transfer.

Example 3. GRA not completed in all material respects. (i) *Additional facts.* DC timely filed its tax return for the year of the FS Transfer, reporting no gain with respect to the exchange of the FS stock. DC was aware of the requirement to file a GRA to avoid recognizing gain under section 367(a)(1), including the requirement to provide the basis and fair market value of the transferred stock. However, DC filed a purported GRA that did not contain the fair market value of the FS stock. Instead, the GRA was filed with the statement that the fair market value information was ''available upon request.'' Other than the omission of the fair market value of the FS stock, the GRA contained all other information required by this section.

(ii) *Result.* Because DC omitted the fair market value of the FS stock from the GRA, the GRA was not completed in all material respects. Accordingly, there is a failure to timely file the GRA. Furthermore, because DC knowingly omitted such information, DC's omission is a willful failure to timely file a GRA. Accordingly, the GRA is not considered timely filed for purposes of paragraph (d)(1) of this section, and DC must recognize the full amount of the gain realized on the FS Transfer. A similar result would arise if DC had included the fair market value of the FS stock, but omitted its tax basis from the GRA.

Example 4. GRA filed as a result of hindsight. (i) *Additional facts.* At the time that DC filed its tax return for the tax year of the FS Transfer, DC anticipated selling Business A in the following tax year, which was expected to produce a capital loss that could be carried back to fully offset the gain recognized on the FS Transfer. DC chose not to file a GRA but to recognize the gain from the FS Transfer under section 367(a)(1), which it reported on its timely filed tax return. However, a large class action lawsuit was filed against Business A at the end of the following year, and DC was unable to sell the business. As a result, DC did not realize the expected capital loss, and was not able to offset the gain from the FS Transfer. DC now seeks to file a GRA for the FS Transfer.

(ii) *Result.* Because DC failed to file a GRA with its timely filed tax return for the year of the FS Transfer, there is a failure to timely file the GRA as required by paragraph (d)(1) of this section. Furthermore, because DC knowingly chose not to file a GRA for the FS Transfer, its actions constitute a willful failure to timely file a GRA. Accordingly, the GRA is not considered timely filed for purposes of paragraph (d)(1) of this section, and DC must recognize the full amount of the gain realized on the FS Transfer.

* * * * *

(r) *Effective/applicability date*—(1) *General rule*—(i) *Transfers occurring on or after March 13, 2009.* * * * The eleventh sentence of paragraph (a) and paragraphs (b)(1)(iv), (b)(1)(vi), (b)(1)(xiii), (d)(1), (j)(8), and (p) of this section will apply to gain recognition agreement documents that are required to be filed with a timely filed return on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**, as well as to any requests for relief for failures to file gain recognition agreement documents, or failures to comply, if such requests are submitted on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**.

* * * * *

■ **Par. 4.** Section 1.367(e)-2 is amended:

■ 1. By revising the ninth sentence and adding two new sentences before the last sentence of paragraph (a).

■ 2. By revising paragraph (b)(1)(i).

■ 3. In paragraph (b)(2)(i)(A)(*2*) by removing the language ''its U.S. income tax returns'' and adding the language ''its timely filed U.S. income tax returns'' in its place.

■ 4. In paragraph (b)(2)(i)(A)(*3*) by removing the language ''its U.S. income tax return'' and adding the language ''its timely filed U.S. income tax return'' in its place.

■ 5. In the first sentence of paragraph (b)(2)(i)(E)(*3*) by removing the language ''its U.S. income tax return'' and adding the language ''its timely filed U.S. income tax return'' in its place.

■ 6. In paragraph (b)(2)(i)(E)(*4*)(*ii*) by removing the language ''its U.S. income tax return'' and adding the language ''its timely filed U.S. income tax return'' in its place.

■ 7. In paragraph (b)(2)(i)(E)(*5*)(*ii*) by removing the language ''its U.S. income tax return'' and adding the language ''its timely filed U.S. income tax return'' in its place.

■ 8. In the first sentence of paragraph (b)(2)(iii)(A) by removing the language ''its U.S. income tax return'' and adding

the language ''its timely filed U.S. income tax return'' in its place.

■ 9. In paragraph (c)(2)(i)(B)(*3*) by removing the language ''their U.S. income tax returns'' and adding the language ''their timely filed U.S. income tax returns'' in its place.

■ 10. By revising paragraph (e).

■ 11. By adding paragraphs (f) and (g).

The revisions and additions read as follows:

§ 1.367(e)–2. Distributions described in section 367(e)(2)—(a) *Purpose and scope*—(1) *In general.* * * * Paragraph (e) of this section provides rules regarding failures to file statements or other documents required under this section or failures to comply with the requirements of this section. Paragraph (f) of this section provides relief for certain failures to file or comply. Finally, paragraph (g) of this section specifies the effective/applicability date for the rules of this section. * * *

* * * * *

(b) *Distribution by a domestic corporation*—(1) *General rule*—(i) *Recognition of gain and loss.* If a domestic corporation (domestic liquidating corporation) makes a distribution of property in complete liquidation under section 332 to a foreign corporation (foreign distributee corporation) that meets the stock ownership requirements of section 332(b) with respect to stock in the domestic liquidating corporation, then—

(A) Pursuant to section 367(e)(2), section 337(a) and (b)(1) shall not apply; and

(B) The domestic liquidating corporation shall recognize gain or loss on the distribution of property to the foreign distributee corporation, except as provided in paragraph (b)(2) of this section.

* * * * *

(e) *Failures to file or failures to comply*—(1) *Scope.* This paragraph (e) provides rules regarding a failure to file an initial liquidation document with respect to one or more liquidating distributions by a domestic liquidating corporation that, absent such failure, would qualify for nonrecognition treatment under paragraph (b)(2)(i) or (iii) of this section, or with respect to one or more liquidating distributions by a foreign liquidating corporation that, absent such failure, would qualify for nonrecognition treatment under paragraph (c)(2)(i)(B) of this section (failure to file). This paragraph (e) also provides rules regarding failures to comply in all material respects with the terms of this section with respect to one or more liquidating distributions for which nonrecognition treatment was initially claimed under paragraph (b)(2)(i), (b)(2)(iii), or (c)(2)(i)(B) of this section, as applicable (failure to comply).

(2) *Definitions.* The following definitions apply for purposes of this section.

(i) An *initial liquidation document* means any statement, schedule, or form required to be filed under this section in order for the domestic liquidating corporation or foreign liquidating corporation, as applicable, to initially qualify to claim nonrecognition treatment with respect to one or more liquidating distributions described in this section, including—

(A) The statement and attachments described in paragraph (b)(2)(i)(C) of this section;

(B) The statement described in paragraph (b)(2)(iii)(D) of this section; and

(C) The statement and attachments described in paragraph (c)(2)(i)(C) of this section.

(ii) A *subsequent liquidation document* means any statement, schedule, or form (other than an initial liquidation document) required to be filed under this section in order for the domestic liquidating corporation or foreign liquidating corporation, as applicable, to continue to qualify for nonrecognition treatment with respect to one or more liquidating distributions described in this section, including—

(A) The schedule described in paragraph (b)(2)(i)(E)(*3*) of this section;

(B) The schedule described in paragraph (b)(2)(i)(E)(*4*)(*ii*) of this section; and

(C) The statement and attachments described in paragraph (b)(2)(i)(E)(*5*) of this section.

(iii) A *timely filed U.S. income tax return* means a Federal income tax return filed by the due date set forth in section 6072, plus any extension of time to file such return granted under section 6081.

(3) *Failure to file*—(i) *General rule.* For purposes of this section and except as provided in paragraph (e)(5) or (f) of this section, there is a failure to file an initial liquidation document if—

(A) An initial liquidation document is not filed with the timely filed U.S. income tax return specified under this section, or

(B) An initial liquidation document is not completed in all material respects.

(ii) *Consequences of a failure to file.* If there is a failure to file an initial liquidation document, then nonrecognition treatment under paragraph (b)(2)(i), (b)(2)(iii), or (c)(2)(i)(B) of this section (as appropriate) will not apply.

(4) *Failure to comply*—(i) *General rule.* For purpose of this section and except as provided in paragraph (e)(5) or (f) of this section, a failure to comply includes—

(A) A failure to report gain, or pay any additional tax or interest due, in accordance with the requirements under this section; and

(B) A failure to file a subsequent liquidation document, as determined applying paragraph (e)(3)(i) of this section, but replacing the term ''initial liquidation document'' with the term ''subsequent liquidation document.''

(ii) *Consequences of a failure to comply.* If there is a failure to comply in any material respect with the terms of paragraph (b)(2)(i), (b)(2)(iii), or (c)(2)(i) of this section, as applicable, then—

(A) Any gain (but not loss) that was not previously recognized by the domestic liquidating corporation or foreign liquidating corporation, as applicable, under paragraph (b)(2)(i), (b)(2)(iii), or (c)(2)(i)(B) of this section must be recognized; and

(B) The period of limitations on assessment of tax is extended until the close of the third full taxable year ending after the date on which the Director of Field Operations International, Large Business & International (or any successor to the roles and responsibilities of such position, as appropriate) (Director) is provided written notification that specifically references the failure to comply, or a tax return is filed reporting the gain that was not recognized by the domestic liquidating corporation or the foreign liquidating corporation, as applicable, by reason of paragraph (b)(2)(i), (b)(2)(iii), or (c)(2)(i)(B) of this section.

(f) *Relief for certain failures to file or failures to comply that are not willful*—(1) *In general.* This paragraph (f) provides relief if there is a failure to file an initial liquidation document as described in paragraph (e)(3)(i) of this section (failure to file), or a failure to comply in any material respect with the terms of this section as described in paragraph (e)(4)(i) of this section (failure to comply), respectively. The failure to file or a failure to comply, as applicable, is deemed not to have occurred for purposes of paragraph (e)(3)(ii) or (e)(4)(ii) of this section if the taxpayer is able to demonstrate that the failure was not willful using the procedure set forth in this paragraph (f). For this purpose, willful is to be interpreted consistent with the meaning of that term in the context of other civil penalties, which

would include a failure due to gross negligence, reckless disregard, or willful neglect. Whether a failure to file or failure to comply, as applicable, was willful will be determined by the Director based on all the facts and circumstances.

The taxpayer shall submit a request for relief and an explanation as provided in paragraph (f)(2)(i) of this section. Although a taxpayer whose failure to file or failure to comply, as applicable, is determined not to be willful will avoid gain or loss recognition under this section, the taxpayer will be subject to a penalty under section 6038B if the taxpayer fails to satisfy the reporting requirements under that section and does not demonstrate that the failure was due to reasonable cause and not willful neglect. See § 1.6038B–1(e)(4) and (f). The determination of whether the failure to file or failure to comply was willful under this section has no effect on any request for relief made under § 1.6038B–1(f).

(2) *Procedures for establishing that a failure to file or comply was not willful*—(i) *Time of submission.* A taxpayer's statement that the failure to file or failure to comply, as applicable, was not willful will be considered only if, promptly after the taxpayer becomes aware of the failure, an amended return is filed for the taxable year to which the failure relates that includes the information that should have been included with the original return for such taxable year or that otherwise complies with the rules of this section, and that includes a written statement explaining the reasons for the failure. In the case of a liquidating distribution described in paragraph (b)(2)(i) or (c)(2)(i)(B) of this section, the taxpayer must file, with the amended return, a Form 8838 extending the period of limitations on the assessment of tax with respect to the gain realized but not recognized with respect to the liquidating distribution to the later of the date provided in paragraph (b)(2)(i)(C)(*5*), taking into account paragraph (c)(2)(i)(C) and (D), as applicable, or three years from the date the required information is provided to, or the required gain or loss is reported to, as applicable, the IRS. In the case of a liquidating distribution described in paragraph (b)(2)(iii) of this section, the taxpayer must file, with the amended return, a Form 8838 extending the period of limitations on assessment of tax with respect to the gain realized but not recognized with respect to the liquidating distribution to three years from the date the required information is provided to the IRS, or the required gain or loss is reported to the IRS. The amended return and Form 8838 must be filed with the applicable Internal Revenue Service Center with which the taxpayer filed its original return for such taxable year. The taxpayer may also submit a request for relief from the penalty of section 6038B as part of the same submission.

(ii) *Notice requirement.* In addition to the requirements of paragraph (f)(2)(i) of this section, the taxpayer must comply with the notice requirements of this paragraph (f)(2)(ii). If any taxable year of the taxpayer is under examination when the amended return is filed, a copy of the amended return and any information required to be included with such return must be delivered to the Internal Revenue Service personnel conducting the examination. If no taxable year of the taxpayer is under examination when the amended return is filed, a copy of the amended return and any information required to be included with such return must be delivered to the Director.

(3) For an illustration of the application of the willfulness standard, see the examples in § 1.367(a)–8(p)(3).

(g) *Effective/applicability dates.* The ninth, tenth, and eleventh sentences of paragraph (a) of this section, and paragraphs (b)(1)(i), (b)(2)(i)(A)(*2*), (b)(2)(i)(A)(*3*), (b)(2)(i)(E)(*3*), (b)(2)(i)(E)(*4*)(*ii*), (b)(2)(i)(E)(*5*)(*ii*), (b)(2)(iii)(A), (c)(2)(i)(B)(*3*), (e), and (f) of this section will apply to liquidation documents that are required to be filed with a timely filed U.S. income tax return on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**, as well as to any requests for relief for failures to file liquidation documents, or failures to comply, if such requests are submitted on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**.

■ **Par. 5.** Section 1.6038B–1 is amended by:

■ 1. Adding a sentence after the first sentence in paragraph (b)(1)(i).
■ 2. Revising paragraph (b)(2)(i)(B)(*1*).
■ 3. Adding paragraph (b)(2)(iii).
■ 4. Adding paragraph (b)(2)(iv).
■ 5. Revising paragraph (c).
■ 6. Revising paragraph (e)(4).
■ 7. Adding paragraph (f)(2)(iii).
■ 8. Adding paragraph (f)(2)(iv).
■ 9. Adding paragraph (g)(5).

The revisions and additions read as follows:

§ 1.6038B–1 Reporting of certain transfers to foreign corporations.

* * * * *

(b) *Time and manner of reporting*—(1) *In general*—(i) *Reporting procedure.* * * * In addition, if the U.S. person files a statement under § 1.367(a)–3(d)(2)(vi)(C), a gain recognition agreement under § 1.367(a)–8, or a liquidation document under § 1.367(e)–2(b), such person must comply in all material respects with the requirements of such section pursuant to the terms of the statement, gain recognition agreement, or liquidation document, as applicable, in order to satisfy a reporting obligation under section 6038B. * * *

* * * * *

(2) * * *

(i) * * *

(B) * * *

(*1*) Except as provided in paragraph (b)(2)(iii) of this section, the U.S. transferor (or one or more successors) filed an initial gain recognition agreement under § 1.367(a)–8, and filed Form 926 in accordance with paragraph (b)(2)(iv) of this section; or

* * * * *

(ii) * * *

(iii) *Timely filed initial gain recognition agreement.* Paragraph (b)(2)(i)(B)(*1*) of this section will not apply unless the initial gain recognition agreement is timely filed as determined under § 1.367(a)–8(d)(1), but for purposes of this section, determined without regard to § 1.367(a)–8(p). However, see paragraph (f)(3) of this section for certain relief that may be available.

(iv) *Satisfaction of section 6038B reporting if a gain recognition agreement is filed.* If the U.S. transferor is described in paragraph (b)(2)(i)(B)(*1*) of this section and is not otherwise required to file a Form 926 with respect to a transfer of assets other than the stock or securities to the transferee foreign corporation, the requirements of this section are satisfied with respect to the transfer of the stock or securities by completing Part I and Part II of Form 926, noting in Part III that the information required by Form 926 with respect to the transfer of stock or securities is contained in a gain recognition agreement filed pursuant to § 1.367(a)–8, and attaching a signed copy of the Form 926 to its U.S. income tax return for the year of the transfer. If the U.S. transferor is required to file Form 926 with respect to a transfer of assets in addition to the stock or securities, the requirements of this section are satisfied with respect to the transfer of the stock or securities by noting in Part III that the information required by Form 926 with respect to the transfer of stock or securities is contained in a gain recognition

agreement filed pursuant to § 1.367(a)–8.

* * * * *

(c) * * *

(1) through (4)(i) [Reserved]. For further guidance, see § 1.6038B–1T(c)(1) through (4)(i).

(ii) *Stock or securities.* Describe any stock or securities that are transferred, including the adjusted tax basis and fair market value of the stock or securities, the class or type, amount, and characteristics of the stock or securities, and the name, address, place of incorporation, and general description of the corporation issuing the stock or securities. In addition, if any provision of § 1.367(a)–3 applies to except the transfer of the stock or securities from section 367(a)(1), provide information supporting the claimed application of such provision. However, see paragraph (b)(2) of this section for certain exceptions and special rules for reporting transfers of stock or securities under section 367(a).

(5) [Reserved]. For further guidance, see § 1.6038B–1T(c)(5).

* * * * *

(e) * * *

(4) *Reporting rules for section 367(e)(2) distributions by domestic liquidating corporations*—(i) *General rule.* Except as provided in paragraph (e)(4)(ii) of this section, if the distributing corporation makes a distribution of property in complete liquidation under section 332 to a foreign distributee corporation that meets the stock ownership requirements of section 332(b) with respect to the stock of the distributing corporation, then the distributing corporation shall complete a Form 926 and attach a signed copy of such form to its timely filed U.S. income tax return for the taxable years that include one or more liquidating distributions. The property description contained in Part III of the Form 926 shall contain a description, including the adjusted tax basis and fair market value, of all property distributed by the distributing corporation (regardless of whether the distribution of the property qualifies for nonrecognition treatment). The description shall also identify the items of property for which nonrecognition treatment is claimed under § 1.367(e)–2(b)(2)(ii) or (iii), as applicable.

(ii) *Special rule.* Except as provided in paragraph (e)(4)(iii) of this section, if the distributing corporation distributes items of property that will be used by the foreign distributee corporation in the conduct of a trade or business in the United States and the distributing corporation does not recognize gain or loss on such distribution under § 1.367(e)–2(b)(2)(i) with respect to such property, then the distributing corporation may satisfy the requirements of this section by completing Part I and Part II of Form 926, noting in Part III that the information required by Form 926 is contained in a statement required by § 1.367(e)–2(b)(2)(i)(C)(*2*), and attaching a signed copy of Form 926 to its timely filed U.S. income tax return for the taxable years that include one or more distributions in liquidation. In addition, if the distributing corporation distributes stock of a domestic subsidiary corporation and does not recognize gain or loss on such distribution under § 1.367(e)–2(b)(2)(iii) with respect to such stock, then the distributing corporation may satisfy the requirements of this section by completing Part I and Part II of Form 926, noting in Part III that the information required by Form 926 is contained in a statement required by § 1.367(e)–2(b)(2)(iii)(D), and attaching a signed copy of Form 926 to its timely filed U.S. income tax return for the taxable years that include one or more distributions of domestic subsidiary stock.

(iii) *Properly filed statement.* Paragraph (e)(4)(ii) will not apply if there is a failure to file an initial liquidation document as determined under § 1.367(e)–2(e)(3)(i), but for purposes of this section, determined without regard to § 1.367(e)–2(f). However, see paragraph (f)(3) of this section for certain relief that may be available.

(f) * * *

(2) * * *

(iii) With respect to an initial gain recognition agreement filed under § 1.367(a)–8, a failure to comply as determined under § 1.367(a)–8(j)(8), but for purposes of this section, determined without regard to the application of § 1.367(a)–8(p).

(iv) With respect to an initial liquidation document filed under § 1.367(e)–2(b)(1), a failure to comply as determined under § 1.367(e)–2(e)(4)(i), but for purposes of this section, determined without regard to the application of § 1.367(e)–2(f).

* * * * *

(g) * * *

(5) The second sentence of paragraph (b)(1)(i) and paragraphs (b)(2)(i)(B)(*1*), (b)(2)(iii), (b)(2)(iv), (c), (e)(4), (f)(2)(iii), and (f)(2)(iv) of this section will apply to documents required to be filed with a timely filed return on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**, as well as to any requests for relief for failures to file documents, or failures to comply, if such requests are submitted on or after the date of publication of the Treasury decision adopting these rules as final regulations in the **Federal Register**.

Steven T. Miller,

Deputy Commissioner for Services and Enforcement.

[FR Doc. 2013–01749 Filed 1–30–13; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG–130507–11]

RIN 1545–BK44

Net Investment Income Tax; Correction

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Correction to notice of proposed rulemaking and notice of public hearing.

SUMMARY: This document contains corrections to a notice of proposed rulemaking and notice of public hearing (REG–130507–11) that was published in the **Federal Register** on Wednesday, December 5, 2012 (77 FR 72612). The proposed regulations provide guidance under section 1411 of the Internal Revenue Code.

FOR FURTHER INFORMATION CONTACT: David H. Kirk, or Adrienne Mikolashek at (202) 622–3060 (not a toll free number).

SUPPLEMENTARY INFORMATION:

Background

The notice of proposed rulemaking and notice of public hearing (REG–130507–11) that is the subject of these corrections is under Section 1411 of the Internal Revenue Code.

Need for Correction

As published, the notice of proposed rulemaking and notice of public hearing (REG–130507–11) contains errors that may prove to be misleading and are in need of clarification.

Correction of Publication

Accordingly, the notice of proposed rulemaking and notice of public hearing (REG–130507–11), that was the subject of FR Doc. 2012–29238, is corrected as follows:

■ 1. On page 72612, in the preamble, column 1, under the caption **FOR**

FURTHER INFORMATION, lines 2 and 3, the language ''Michala Irons, (202) 622–3050, or David H. Kirk, (202) 622–3060; concerning'' is corrected to read ''David H. Kirk, or Adrienne Mikolashek (202) 622–3060; concerning''.

■ 2. On page 72621, in the preamble, column 2, line 3, the language ''corporation, is engaged in trade or'' is corrected to read ''corporation, is engaged in a trade or''.

■ 3. On page 72630, in the preamble, column 3, line 7, the language ''the meaning section 316(a), or any gain'' is corrected to read ''the meaning of section 316(a), or any gain''.

■ 4. On page 72631, in the preamble, column 3, line 13 from the bottom of the column, the language ''adjusted gross, or the estate's or trust's'' is corrected to read ''adjusted gross income, or the estate's or trust's''.

§ 1.1411–4 [Corrected]

■ 5. On page 72638, column 3, under the paragraph heading § 1.1411–4 Definition of net investment income., § 1.1411–4(c)(2), line 3, the language ''described in § 1.1411–5(a)(2)),'' is corrected to read ''described in § 1.1411–5(a)(2),''.

§ 1.1411–7 [Corrected]

■ 6. On page 72646, column 1, under the paragraph heading § 1.1411–7 Exception for dispositions of interests in partnerships and S corporations., § 1.1411–7(b)(4), line 2, the language '' Because both properties are used in PRS's in'' is corrected to read ''Because both properties are used in PRS's''.

■ 7. On Page 72646, column 1, under the same paragraph heading, § 1.1411–7(b)(4) *Example 7* (i), line 9, the language ''a trade or business is described in § 1.1411–'' is corrected to read ''a trade or business described in § 1.1411–''.

■ 8. On Page 72646, column 2, under the same paragraph heading, § 1.1411–7(b)(4) *Example 8* (i), line 2 from the bottom of the column, the language ''following adjusted basis and fair market'', is corrected to read ''following adjusted bases and fair market''.

§ 1.1411–10 [Corrected]

■ 9. On page 72649, column 1, under the paragraph heading § 1.1411–10 Controlled foreign corporations and passive foreign investment companies., § 1.1411–10(d)(1)(i), line 5, the language '' by an individual, estate or trust'' is corrected to read '' by an individual, estate, or trust''.

■ 10. On page 72649, column 2, under the same paragraph heading, § 1.1411–10(d)(1)(i)(B), line 2, the language ''individual, estate or trust pursuant to'' is corrected to read ''individual, estate, or trust pursuant to''.

■ 11. On page 72651, column 1, under the same paragraph heading, § 1.1411–10(h) *Example 2* (ii)(A),line 2, the language ''1411(c)(1)(A)(i) and § 1411(c)(1)(A)(i).'' Is corrected to read ''1411(c)(1)(A)(i) and § 1.1411–4(a)(1)(i).''.

LaNita VanDyke,

Chief, Publications and Regulations Branch, Legal Processing Division, Associate Chief Counsel, (Procedure and Administration).

[FR Doc. 2013–02039 Filed 1–30–13; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket No. USCG–2012–1069]

RIN 1625–AA00

Safety Zone—Chelsea River, Boston Inner Harbor, Boston, MA

AGENCY: Coast Guard, DHS.

ACTION: Advance notice of proposed rulemaking; solicitation for comments.

SUMMARY: The Coast Guard is soliciting public comment on the continued applicability of, or the need to amend an existing regulation; 33 CFR 165.120, Safety Zone: Chelsea River, Boston Inner Harbor, Boston, MA. This advance notice allows the Coast Guard to gather information from the public and waterway stakeholders that use the Chelsea River that may result in an amendment to, or the disestablishment of, the existing regulation. Any proposed amendments should reflect the recent changes to the Chelsea Street Bridge and the modification of the surrounding navigational channel. The comments and recommendations received from this advanced notice may lead to future rulemaking.

DATES: Comments and related material must be received by the Coast Guard on or before May 31, 2013.

Requests for additional public meetings must be received by the Coast Guard on or before March 18, 2013.

ADDRESSES: You may submit comments identified by docket number USCG–2012–1069 using any one of the following methods:

(1) *Federal eRulemaking Portal: http://www.regulations.gov.*

(2) *Fax:* 202–493–2251.

(3) *Mail:* Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590–0001.

(4) *Hand delivery:* Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202–366–9329.

To avoid duplication, please use only one of these four methods. See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section below for instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions on this proposed rule, call or email Mr. Mark Cutter, Coast Guard Sector Boston Waterways Management Division, telephone 617–223–4000, email *Mark.E.Cutter@uscg.mil.* If you have questions on viewing or submitting material to the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202–366–9826.

SUPPLEMENTARY INFORMATION:

TABLE OF ACRONYMS

COTP	Captain of the Port
DHS	Department of Homeland Security
FR	Federal Register
NPRM	Notice of Proposed Rulemaking

A. Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials. All comments received will be posted without change to *http://www.regulations.gov* and will include any personal information you have provided.

1. Submitting comments

If you submit a comment, please include the docket number for this rulemaking (USCG–2012–1069), indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation. You may submit your comments and material online (via *http://www.regulations.gov*) or by fax, mail, or hand delivery, but please use only one of these means. If you submit a comment online via *www.regulations.gov,* it will be considered received by the Coast Guard when you successfully transmit the comment. If you fax, hand deliver, or mail your comment, it will be considered as having been received by the Coast Guard when it is received at the Docket Management Facility. We

recommend that you include your name and a mailing address, an email address, or a telephone number in the body of your document so that we can contact you if we have questions regarding your submission.

To submit your comment online, go to *http://www.regulations.gov,* type the docket number (USCG–2012–1069) in the ''SEARCH'' box and click ''SEARCH.'' Click on ''Submit a Comment'' on the line associated with this rulemaking.

If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period and may change the rule based on your comments.

2. Viewing comments and documents

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to *http://www.regulations.gov,* type the docket number ''USCG–2012–1069'' in the ''SEARCH'' box and click ''Search.'' Click and Open Docket Folder on the line associated with this rulemaking. You may also visit the Docket Management Facility in Room W12–140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. We have an agreement with the Department of Transportation to use the Docket Management Facility.

3. Privacy Act

Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act notice regarding our public dockets in the January 17, 2008, issue of the **Federal Register** (73 FR 3316).

4. Public meeting

The Coast Guard will hold two public scoping meetings in order to expand the opportunity for public comment. We seek comments from any interested or effected stakeholders and encourage all stakeholders to attend these meetings. We will also provide a written summary of the meetings and comments and will place that summary in the docket. A teleconference phone number has been established for those who desire to participate, but are unable to attend the meetings in person; call toll free 1–877–672–3882, follow the instructions given on the phone and enter the following pass code #4890957 when prompted.

For information on the facility or services for individuals with disabilities or to request special assistance at the public meeting contact Mr. Mark Cutter, Coast Guard Sector Boston Waterways Management Division, at telephone 617–223–4000 or via email at *Mark.E.Cutter@uscg.mil.*

DATES: The public scoping meetings are currently planned for the following dates, to be held at U.S. Coast Guard Base Boston, 455 Commercial Street, Boston, MA 02109:

- March 6, 2013, from 11:00 a.m. to 12:00 p.m.;
- April 24, 2013, from 11:00 a.m. to 12:00 p.m.

B. Background

The original Chelsea Street Bridge was a bascule-type bridge owned by the City of Boston and constructed in 1939. It spanned the Chelsea River providing a means for vehicles to travel between Chelsea, MA and East Boston, MA. Several petroleum-product transfer facilities are located on the Chelsea River, upstream and downstream of the Chelsea Street Bridge. Transit of tank vessels through the bridge is necessary to access the petroleum facilities upstream of the bridge. The narrow, ninety-six foot horizontal span created a narrow passage through the bridge for larger vessels. Adding to the difficulty is the close proximity of neighboring shore structures and, at times, vessels moored at the Sunoco Logistics facility downstream of the bridge on the East Boston side. These factors led to the establishment of the present safety zone regulation which restricts certain vessel passage through the Chelsea Street Bridge based on vessel dimensional criteria, assist tug support, and daylight restrictions.

Since the implementation of the regulations, physical changes have occurred within the confines of the safety zone. A new vertical lift span bridge with a 175 foot vertical clearance and a 175 foot horizontal navigable channel span has been constructed in place of the old Chelsea Street Bridge. The federal navigational channel has been expanded to a width of 175 feet. Six new permanent fixed lighted aids to navigation structures have been installed in the immediate area of the bridge to best mark the new channel.

While the current regulations have provided an acceptable level of safety, it may be desirable to amend or disestablish the current regulation in light of the new bridge and navigational channel improvements within the area of the existing safety zone.

C. Information requested

The Coast Guard is seeking comments pertaining to the existing safety zone in the vicinity of the Chelsea Street Bridge in light of the modified waterway. In particular, comments addressing the need and or relevancy of regulations governing vessel dimensional restrictions, assist tug requirements, and transits between sunset and sunrise are requested.

Additionally, the Coast Guard welcomes input and possible solutions regarding any other navigational and waterway safety issue on the Chelsea River that is not currently addressed in the existing safety zone regulation.

Dated: January 15, 2013.

J.C. O'Connor, III,

Captain, U.S. Coast Guard, Captain of the Port Boston.

[FR Doc. 2013–02080 Filed 1–30–13; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R05–OAR–2011–0328; FRL–9774–3]

Approval and Promulgation of Air Quality Implementation Plans; Minnesota; Flint Hills Resources Pine Bend

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve an August 29, 2011, request for revision to the Minnesota sulfur dioxide State Implementation Plan for Flint Hills Resources Pine Bend, LLC, in Dakota County. This oil refinery is shutting down an incinerator, rerouting process gases, planning for a new boiler, and making other emission limit reductions. This revision addresses an important safety issue with the current off-gas incinerator. Because the revision will result in a decrease in sulfur dioxide emissions, EPA proposes to approve the revision.

DATES: Comments must be received on or before March 4, 2013.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R05–OAR–2011–0328, by one of the following methods:

1. *www.regulations.gov:* Follow the on-line instructions for submitting comments.

2. *Email: blakley.pamela@epa.gov.*

3. *Fax: (312) 692–2450.*

4. *Mail:* Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR–18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.

5. *Hand Delivery:* Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR–18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604. Such deliveries are only accepted during the Regional Office normal hours of operation, and special arrangements should be made for deliveries of boxed information. The Regional Office official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

Please see the direct final rule which is located in the Rules section of this **Federal Register** for detailed instructions on how to submit comments.

FOR FURTHER INFORMATION CONTACT: Mary Portanova, Environmental Engineer, Control Strategies Section, Air Programs Branch (AR–18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 353–5954, *portanova.mary@epa.gov.*

SUPPLEMENTARY INFORMATION: In the Final Rules section of this **Federal Register**, EPA is approving the State's SIP submittal as a direct final rule without prior proposal because the Agency views this as a noncontroversial submittal and anticipates no adverse comments. A detailed rationale for the approval is set forth in the direct final rule. If no adverse comments are received in response to this rule, no further activity is contemplated. If EPA receives adverse comments, the direct final rule will be withdrawn and all public comments received will be addressed in a subsequent final rule based on this proposed rule. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. For additional information, see the direct final rule which is located in the Rules section of this **Federal Register**.

Dated: January 17, 2013.

Susan Hedman,

Regional Administrator, Region 5.

[FR Doc. 2013–02018 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2012–0849; FRL–9760–3]

Revisions to the California State Implementation Plan, Placer County Air Pollution Control District

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve revisions to the Placer County Air Pollution Control District (PCAPCD) portion of the California State Implementation Plan (SIP). These revisions concern volatile organic compound (VOC), oxides of nitrogen (NO_X), and particulate matter (PM) emissions from open burning. We are proposing to approve local rules to regulate this emission source under the Clean Air Act (CAA or the Act).

DATES: Any comments on this proposal must arrive by March 4, 2013.

ADDRESSES: Submit comments, identified by docket number EPA–R09–OAR–2012–0849, by one of the following methods:

1. *Federal eRulemaking Portal: www.regulations.gov*. Follow the on-line instructions.

2. *Email: steckel.andrew@epa.gov.*

3. *Mail or deliver:* Andrew Steckel (Air–4), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105–3901.

Instructions: All comments will be included in the public docket without change and may be made available online at *www.regulations.gov,* including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through *www.regulations.gov* or email. *www.regulations.gov* is an ''anonymous access'' system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send email directly to EPA, your email address will be automatically captured and included as part of the public comment. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: Generally, documents in the docket for this action are available electronically at *www.regulations.gov* and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California 94105–3901. While all documents in the docket are listed at *www.regulations.gov,* some information may be publicly available only at the hard copy location (e.g., copyrighted material, large maps), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Rynda Kay, EPA Region IX, (415) 947–4118, *Kay.Rynda@epa.gov*.

SUPPLEMENTARY INFORMATION: This proposal addresses the following local rules: PCAPCD Rule 102 Definitions, PCAPCD Rule 301 Nonagricultural Burning Smoke Management, PCAPCD Rule 302 Agricultural Burning Smoke Management, PCAPCD Rule 303 Prescribed Burning Smoke Management, PCAPCD Rule 304 Land Development Smoke Management, PCAPCD Rule 305 Residential Allowable Burning, and PCAPCD Rule 306 Open Burning of Nonindustrial Wood Waste at Designated Disposal Sites. In the Rules and Regulations section of this **Federal Register**, we are approving these local rules in a direct final action without prior proposal because we believe these SIP revisions are not controversial. If we receive adverse comments, however, we will publish a timely withdrawal of the direct final rule and address the comments in subsequent action based on this proposed rule. Please note that if we receive adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, we may adopt as final those provisions of the rule that are not the subject of an adverse comment.

We do not plan to open a second comment period, so anyone interested in commenting should do so at this time. If we do not receive adverse comments, no further activity is planned. For further information, please see the direct final action.

Dated: November 19, 2012.

Jared Blumenfeld,

Regional Administrator, Region IX.

[FR Doc. 2013–01337 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R1–ES–2011–0098; 4500030113]

RIN 1018–AX14

Endangered and Threatened Wildlife and Plants; Listing 38 Species on Molokai, Lanai, and Maui as Endangered and Designating Critical Habitat on Molokai, Lanai, Maui, and Kahoolawe for 135 Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule; reopening of comment period.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce the reopening of the comment period on our June 11, 2012 (77 FR 34464), proposal to list 38 species as endangered, reaffirm the listing of 2 endemic Hawaiian plants currently listed as endangered, and designate critical habitat for 39 of these 40 plant and animal species on the Hawaiian Islands of Molokai, Lanai, and Maui; designate critical habitat for 11 plant and animal species that are already listed as endangered; and revise critical habitat for 85 plant species that are already listed as endangered or threatened on the Hawaiian Islands of Molokai, Lanai, Maui, and Kahoolawe, under the Endangered Species Act of 1973, as amended (Act). We also announce the availability of a draft economic analysis (DEA) of the proposed designation and an amended required determinations section of the proposed designation. We are reopening the comment period to allow all interested parties an opportunity to comment simultaneously on the proposed rule, the associated DEA, and the amended required determinations section. Comments previously submitted on this rulemaking do not need to be resubmitted, as they will be fully considered in preparation of the final rule. We also announce a public hearing and public information meeting on our proposed rule and associated documents.

DATES: *Written Comments:* We will consider comments received or postmarked on or before March 4, 2013. Please note comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section, below) must be received by 11:59 p.m. Eastern Time on the closing date. If you are submitting your comments by hard copy, please mail them by March 4, 2013, to ensure that we receive them in time to give them full consideration.

Public Information Meeting: We will hold a public information meeting in Kihei, Maui, on Thursday, February 21, 2013, from 3 p.m. to 5 p.m. (see **ADDRESSES** section, below).

Public Hearing: We will hold a public hearing in Kihei, Maui, on Thursday, February 21, 2013, from 6 p.m. to 8 p.m. (see **ADDRESSES** section, below).

ADDRESSES: *Document Availability:* You may obtain copies of the June 11, 2012, proposed rule, this document, and the draft economic analysis at *http://www.regulations.gov* at Docket Number FWS–R1–ES–2011–0098, from the Pacific Islands Fish and Wildlife Office's Web site (*http://www.fws.gov/pacificislands/*), or by contacting the Pacific Islands Fish and Wildlife Office directly (see **FOR FURTHER INFORMATION CONTACT**).

Written Comments: You may submit written comments by one of the following methods, or at the public information meeting or public hearing:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* Search for Docket No. FWS–R1–ES–2011–0098, which is the docket number for this rulemaking, and follow the directions for submitting a comment.

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R1–ES–2011–0098; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

Public Information Meeting and Public Hearing: Both the public information meeting and the public hearing will be held in the multi-purpose room at the Kealia Pond National Wildlife Refuge, Milepost 6, Mokulele Highway (Highway 311), Kihei, Maui; 808–875–1582.

We will post all comments we receive on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (see the Public Comments section below for more information).

FOR FURTHER INFORMATION CONTACT: Loyal Mehrhoff, Field Supervisor, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard, Box 50088, Honolulu, HI 96850; by telephone at 808–792–9400; or by facsimile at 808–792–9581. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Public Comments

We will accept written comments and information during this reopened comment period on our proposed rule that was published in the **Federal Register** on June 11, 2012 (77 FR 34464), our draft economic analysis of the proposed critical habitat designation, and the amended required determinations section provided in this document.

On June 11, 2012, we published a proposal (77 FR 34464) to list 38 species as endangered, reaffirm the listing of 2 endemic Hawaiian plants currently listed as endangered, and designate critical habitat for 39 of these 40 plant and animal species on the Hawaiian Islands of Molokai, Lanai, and Maui; designate critical habitat for 11 plant and animal species that are already listed as endangered, and revise critical habitat for 85 plant species that are already listed as endangered or threatened on the Hawaiian Islands of Molokai, Lanai, Maui, and Kahoolawe. Later this year, we will publish two separate final rules: One concerning the listing determinations described above, and the other concerning the critical habitat determinations described above. The final listing rule will publish under the existing Docket No. FWS–R1–ES–2011–0098, and the final critical habitat designation will publish under Docket No. FWS–R1–ES–2013–0003.

We request that you provide comments specifically on our listing determination under Docket No. FWS–R1–ES–2011–0098. We will consider information and recommendations from all interested parties. We are particularly interested in comments concerning:

(1) Biological, commercial trade, or other relevant data concerning threats (or the lack thereof) to the 40 species proposed or reevaluated for listing, and regulations that may be addressing those threats.

(2) Additional information concerning the range, distribution, and population sizes of each of the 40 species proposed or reevaluated for listing, including the locations of any additional populations of these species.

(3) Any information on the biological or ecological requirements of the 40 species proposed or reevaluated for listing.

(4) Comments on our proposal to revise taxonomic classification with

name changes or family changes for 11 plant species and 2 bird species identified in the proposed rule.

We request that you provide comments specifically on the critical habitat determination and related draft economic analysis under Docket No. FWS–R1–ES–2013–0003. We will consider information and recommendations from all interested parties. We are particularly interested in comments concerning:

(5) The reasons why we should or should not designate areas for any of the 135 species as ''critical habitat'' under section 4 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), including whether there are threats to these species from human activity, the degree of which can be expected to increase due to the designation, and whether the benefit of designation would outweigh threats to these species caused by the designation, such that the designation of critical habitat is prudent.

(6) Whether a revision of critical habitat is warranted for the 85 plant species that are already listed as endangered or threatened under the Act and that currently have designated critical habitat.

(7) Specific information on:

- The amount and distribution of critical habitat for the 135 species;
- Areas in the geographic area occupied at the time of listing and that contain the physical or biological features essential for the conservation of the species;
- Whether special management considerations or protections may be required for the physical or biological features essential to the conservation of the 135 species; and
- What areas not currently occupied are essential to the conservation of the species and why.

(8) Land use designations and current or planned activities in the areas occupied or unoccupied by the species and proposed as critical habitat, and the possible impacts of these activities on these species, or of critical habitat on these designations or activities.

(9) Any foreseeable economic, national security, or other relevant impacts of designating any area as critical habitat. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas that may experience these impacts.

(10) Whether the benefits of excluding any particular area from critical habitat outweigh the benefits of including that area as critical habitat under section 4(b)(2) of the Act, after considering the potential impacts and benefits of the proposed critical habitat designation. We are considering the possible exclusion of non-Federal lands, especially areas in private ownership, and whether the benefits of exclusion may outweigh the benefits of inclusion of those areas. We, therefore, request specific information on:

- The benefits of including any specific areas in the final designation and supporting rationale.
- The benefits of excluding any specific areas from the final designation and supporting rationale.
- Whether any specific exclusions may result in the extinction of the species and why.

For private lands in particular, we are interested in information regarding the potential benefits of including private lands in critical habitat versus the benefits of excluding such lands from critical habitat. This information does not need to include a detailed technical analysis of the potential effects of designated critical habitat on private property. In weighing the potential benefits of exclusion versus inclusion of private lands, the Service may consider whether existing partnership agreements provide for the management of the species. We may consider, for example, the status of conservation efforts, the effectiveness of any conservation agreements to conserve the species, and the likelihood of the conservation agreement's future implementation. We request comment on the broad public benefits of encouraging collaborative efforts and encouraging local and private conservation efforts.

(11) Our process used for identifying those areas that meet the definition of critical habitat for the species, as described in the section of the proposed rule titled ''Criteria Used to Identify Critical Habitat.''

(12) Information on the extent to which the description of potential economic impacts in the draft economic analysis is complete and accurate.

(13) Whether the draft economic analysis makes appropriate assumptions regarding current practices and any regulatory changes that will likely occur as a result of the designation of critical habitat.

(14) Whether the draft economic analysis identifies all Federal, State, and local costs and benefits attributable to the proposed designation of critical habitat, and information on any costs that may have been inadvertently overlooked. For example, are there any costs resulting from critical habitat designation related to the enhancement or maintenance of nonnative ungulates for hunting programs?

(15) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

(15) Specific information on ways to improve the clarity of this rule as it pertains to completion of consultations under section 7 of the Act.

Our final determination concerning listing 38 species as endangered and designating critical habitat for 135 species on the Hawaiian Islands of Molokai, Lanai, Maui, and Kahoolawe will take into consideration all written comments and information we receive during both comment periods, from peer reviewers, and during the public information meeting, as well as comments and public testimony we receive during the public hearing. The comments will be included in the public record for this rulemaking, and we will fully consider them in the preparation of our final determinations. On the basis of peer reviewer and public comments, as well as any new information we may receive, we may, during the development of our final determination concerning critical habitat, find that areas within the proposed critical habitat designation do not meet the definition of critical habitat, that some modifications to the described boundaries are appropriate, or that areas may or may not be appropriate for exclusion under section 4(b)(2) of the Act.

If you submitted comments or information on the proposed rule (June 11, 2012; 77 FR 34464) during the comment period from June 11, 2012, to September 10, 2012 (77 FR 47587), please do not resubmit them. We will incorporate them into the public record as part of this comment period, and we will fully consider them in the preparation of our final determinations.

You may submit your comments and materials concerning the proposed rule or draft economic analysis by one of the methods listed in the **ADDRESSES** section. Verbal testimony may also be presented during the public hearing (see **DATES** and **ADDRESSES** sections). We will post your entire comment—including your personal identifying information—on *http://www.regulations.gov.* If you submit your comment via U.S. mail, you may request at the top of your document that we withhold personal information such as your street address, phone number, or email address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we

used in preparing the proposed rule and draft economic analysis, will be available for public inspection on *http://www.regulations.gov* at Docket No. FWS–R1–ES–2011–0098 or Docket No. FWS–R1–ES–2013–0003, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Public Information Meeting and Public Hearing

We are holding a public information meeting and a public hearing on the date listed in the **DATES** section at the address listed in the **ADDRESSES** section (above). We are holding the public hearing to provide interested parties an opportunity to present verbal testimony (formal, oral comments) or written comments regarding the proposed listing or re-evaluation of the listing of 40 species as endangered and proposed designation of critical habitat for 135 species on the Hawaiian Islands of Molokai, Lanai, Maui, and Kahoolawe, and the associated draft economic analysis. A formal public hearing is not, however, an opportunity for dialogue with the Service; it is only a forum for accepting formal verbal testimony. In contrast to the hearing, the public information meeting will allow the public the opportunity to interact with Service staff who will be available to provide information and address questions on the proposed rule and its associated draft economic analysis. We cannot accept verbal testimony at the public information meeting; verbal testimony can only be accepted at the public hearing. Anyone wishing to make an oral statement at the public hearing for the record is encouraged to provide a written copy of their statement to us at the hearing. At the public hearing, formal verbal testimony will be transcribed by a certified court reporter and will be fully considered in the preparation of our final determination. In the event there is a large attendance, the time allotted for oral statements may be limited. Speakers can sign up at the hearing if they desire to make an oral statement. Oral and written statements receive equal consideration. There are no limits on the length of written comments submitted to us.

Persons with disabilities needing reasonable accommodations to participate in the public information meeting or public hearing should contact Loyal Mehrhoff, Field Supervisor, Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**). Reasonable accommodation requests should be received at least 3 business days prior to the public information meeting or public hearing to help ensure availability; at least 2 weeks prior notice is requested for American Sign Language needs.

Background

The topics discussed below are relevant to designation of critical habitat for 135 species on the Hawaiian Islands of Molokai, Lanai, Maui, and Kahoolawe in this document. For more information on previous Federal actions concerning these species, refer to the proposed listing and designation of critical habitat published in the **Federal Register** on June 11, 2012 (77 FR 34464), which is available online at *http://www.regulations.gov* (at Docket Number FWS–R1–ES–2011–0098) or from the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

On June 11, 2012, we published a proposed rule (77 FR 34464) to list 38 species as endangered and designate or revise critical habitat for 135 plant and animal species. We proposed to designate a total of 271,062 acres (ac) (109,695 hectares (ha)) on the Hawaiian Islands of Molokai, Lanai, Maui, and Kahoolawe (collectively called Maui Nui) as critical habitat. Within that proposed rule, we announced a 60-day comment period, which we subsequently extended for an additional 30 days (77 FR 47587); in total, the comment period began on June 11, 2012, and ended on September 10, 2012. Approximately 47 percent of the area proposed as critical habitat is already designated as critical habitat for other species, including 85 plant species for which critical habitat was designated in 1984 (49 FR 44753; November 9, 1984) and 2003 (68 FR 1220, January 9, 2003; 68 FR 12982, March 18, 2003; 68 FR 25934, May 14, 2003).

Critical Habitat

Section 3 of the Act defines critical habitat as the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection, and specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. If the proposed rule is made final, section 7 of the Act will prohibit destruction or adverse modification of critical habitat by any activity funded, authorized, or carried out by any Federal agency unless it is exempted pursuant to the provisions of the Act (16 U.S.C. 1536(e)–(n) and (p)). Federal agencies proposing actions affecting critical habitat must consult with us on the effects of their proposed actions, under section 7(a)(2) of the Act.

Consistent with the best scientific data available, the standards of the Act, and our regulations, we have initially identified, for public comment, a total of 271,062 ac (109,695 ha) in 100 units for the plants, 44 units for each of the 2 forest birds, 5 units for each of the Lanai tree snails, and one unit for the Maui tree snail, located on the Hawaiian Islands of Molokai, Lanai, Maui, and Kahoolawe, that meet the definition of critical habitat for the 135 plant and animal species. In addition, the Act provides the Secretary with the discretion to exclude certain areas from the final designation after taking into consideration economic impacts, impacts on national security, and any other relevant impacts of specifying any particular area as critical habitat.

Consideration of Impacts Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act requires that we designate or revise critical habitat based upon the best scientific data available, after taking into consideration the economic impact, impact on national security, or any other relevant impact of specifying any particular area as critical habitat. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area as critical habitat, provided such exclusion will not result in the extinction of the species.

When considering the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus (activities conducted, funded, permitted, or authorized by Federal agencies), the educational benefits of mapping areas containing essential features that aid in the recovery of the listed species, and any benefits that may result from designation due to State or Federal laws that may apply to critical habitat. In the case of the 135 Maui Nui species, the benefits of critical habitat include public awareness of the presence of one or more of these species and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for the species due to protection from adverse modification or destruction of

critical habitat. In practice, situations with a Federal nexus exist primarily on Federal lands or for projects undertaken by Federal agencies.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan. We also consider the potential economic impacts that may result from the designation of critical habitat.

In the proposed rule, we identified several areas to consider excluding from the final rule. We are considering excluding from the final designation approximately 40,973 ac (16,582 ha) of private lands that have a perpetual conservation easement, voluntary conservation agreement, conservation or watershed preserve designation, or similar conservation protection.

These specific exclusions will be considered on an individual basis or in any combination thereof. In addition, the final designation may not be limited to these exclusions, but may also consider other exclusions as a result of continuing analysis of relevant considerations (scientific, economic, and other relevant factors, as required by the Act) and the public comment process. In particular, we solicit comments from the public on whether all of the areas identified meet the definition of critical habitat, whether other areas would meet that definition, whether to make the specific exclusions we are considering, and whether there are other areas that are appropriate for exclusion.

The final decision on whether to exclude any area will be based on the best scientific data available at the time of the final designation, including information obtained during the comment periods and information about the economic impact of the designation. Accordingly, we have prepared a draft economic analysis concerning the proposed critical habitat designation, which is available for review and comment (see **ADDRESSES** section).

Draft Economic Analysis

The purpose of the draft economic analysis (DEA) is to identify and analyze the potential economic impacts associated with the proposed critical habitat designation for the 135 Maui Nui species.

The DEA describes the economic impacts of potential conservation efforts for the 135 Maui Nui species; some of these costs will likely be incurred regardless of whether we designate critical habitat. The economic impact of the proposed critical habitat designation is analyzed by comparing scenarios ''with critical habitat'' and ''without critical habitat.'' The ''without critical habitat'' scenario represents the baseline for the analysis, considering protections already in place for these species (e.g., under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The ''with critical habitat'' scenario describes the incremental impacts associated specifically with the designation of critical habitat for the 135 species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for these species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs; these are the costs we may consider in the final designation of critical habitat when evaluating the benefits of excluding particular areas under section 4(b)(2) of the Act.

The ''without critical habitat'' scenario represents the baseline for the analysis, and considers the protections already afforded the Maui Nui species regardless of critical habitat designation. The baseline for this analysis is the state of regulation, absent designation of critical habitat that provides protection to the species under the Act, as well as under other Federal, State, and local laws and conservation plans. The baseline includes sections 7, 9, and 10 of the Act to the extent that they are expected to apply absent the designation of critical habitat for the species. The analysis qualitatively describes how baseline conservation for the Maui Nui species is currently implemented across the proposed designation in order to provide context for the incremental analysis (Chapters 3, 4 and 5 of the DEA). The ''with critical habitat'' scenario describes and monetizes the incremental impacts due specifically to the designation of critical habitat for the species. The incremental Maui Nui conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat, and constitute the potential incremental costs attributed to critical habitat over and above those baseline costs attributed to listing. For a further description of the methodology of the analysis, see Chapter 2, ''Framework for the Analysis,'' of the DEA.

The DEA provides estimated costs of the foreseeable potential economic impacts of the proposed critical habitat designation for the 135 Maui Nui species over the next 10 years, which was determined to be the appropriate period for analysis because limited planning information is available for most activities to forecast activity levels for projects beyond a 10-year timeframe. It identifies potential incremental costs as a result of the proposed critical habitat designation; these are those costs attributed to critical habitat over and above those baseline costs attributed to listing. The DEA separately identifies the potential incremental costs of the critical habitat designation on lands being considered for exclusion under section 4(b)(2) of the Act.

In the DEA, we concentrated on the activities of primary concern with respect to potential adverse modification of critical habitat. The key concern is the potential for activities to result in ground disturbance within a critical habitat unit. Such activities include commercial and residential development, and agricultural (grazing and farming) activities. In addition, we also evaluated potential impacts to renewable energy projects, as these projects: (1) Have the potential to generate ground disturbance; and (2) contribute to the State of Hawaii's ability to meet its established renewable portfolio standards, which are mandated by the State. Our analysis therefore focuses on the following activities:

- Residential and commercial development;
- Grazing and farming activities; and
- Renewable energy developments.

Within these activity categories, we focus our analysis on those projects and activities that are considered reasonably likely to occur within the proposed critical habitat area. This includes projects or activities that are currently planned or proposed, or that permitting agencies or land managers indicate are likely to occur.

When a species is federally listed as an endangered or threatened species, it receives protection under the Act. For example, under section 7 of the Act, Federal agencies must consult with the Service to ensure that actions they fund, authorize, or carry out do not jeopardize the continued existence of the species. Economic impacts of conservation measures undertaken to avoid jeopardy to the species are considered baseline impacts in our analysis as they are not generated by the critical habitat designation. In other words, baseline conservation measures and associated economic impacts are not affected by decisions related to critical habitat designation for these species. Other baseline protections accorded listed species under the Act and other Federal

and State regulations and programs are described in Chapters 2 through 5 of the DEA.

The only Federal regulatory effect of the designation of critical habitat is the prohibition on Federal agencies taking actions that are likely to adversely modify critical habitat. They are not required to avoid or minimize effects unless the effects rise to the level of destruction or adverse modification as those terms are used in section 7 of the Act. Even then, the Service must recommend reasonable and prudent alternatives that can be implemented consistent with the intended purpose of the action, that are within the scope of the Federal agency's legal authority and jurisdiction, and that are economically and technologically feasible. Thus, while the Service may recommend conservation measures, unless the action is likely to destroy or adversely modify critical habitat, implementation of recommended measures is voluntary and Federal agencies and applicants have discretion in how they carry out their section 7 mandates.

Thus, the direct, incremental impacts of critical habitat designation stem from the consideration of the potential for destruction or adverse modification of critical habitat during section 7 consultations. The two categories of direct, incremental impacts of critical habitat designation are: (1) The administrative costs of conducting section 7 consultation; and (2) implementation of any conservation efforts requested by the Service through section 7 consultation, or required by section 7 to prevent the destruction or adverse modification of critical habitat.

The DEA describes the types of project modifications currently recommended by the Service to avoid jeopardy to listed plant, forest bird, and tree snail species (''baseline'' project modifications). These baseline project modifications would be recommended in occupied habitat areas regardless of whether critical habitat is designated for these species. Although the standards for jeopardy and adverse modification of critical habitat are not the same, because the degradation or loss of habitat is a key threat to the Maui Nui species, our jeopardy analyses for these species would already consider the potential for project modifications to avoid the destruction of habitat; therefore recommendations to avoid jeopardy would also likely avoid adverse modification or destruction of critical habitat for these species. The Service estimates that the only project modification that may be recommended to avoid adverse modification of critical habitat above and beyond what would be recommended to avoid jeopardy to the species would be in cases where permanent impacts to critical habitat are unavoidable; in such cases, the Service would recommend that habitat loss be offset elsewhere in designated critical habitat, preferably within the critical habitat unit where the loss occurred. In other words, while the Service may recommend that habitat loss be offset even absent critical habitat designation, critical habitat designation may generate the additional specification that the offset occur within the critical habitat unit. In occupied critical habitat, therefore, the incremental impacts are most likely limited to the potential incremental cost of offsetting habitat loss within the critical habitat unit that is affected as opposed to outside of the unit. In addition, as noted above, any such offsets are not required unless necessary to avoid violating the prohibition of section 7, but to be conservative regarding potential incremental costs of the proposed critical habitat designation, we have assumed that the Federal agency or applicant may choose to implement the recommended offsets.

With regard to occupied habitat, our analysis finds that, in most cases, the recommendation that ground disturbance be offset within the critical habitat unit would not generate additional economic impacts. For all of the ongoing and currently planned projects we have identified, conservation measures have been implemented or are currently being planned to occur within the proposed critical habitat unit even absent critical habitat designation. This means that for all recent and currently proposed projects, the Service does not expect to recommend additional or different conservation measures for the species due to critical habitat designation, although the effects of each project on critical habitat would need to be evaluated as appropriate once a final decision has been made on this designation. In addition, we are aware of one proposed project that has accrued incremental costs associated with additional conservation measures implemented in response to the proposed critical habitat (discussed below).

A number of the proposed critical habitat units are not considered to be occupied by the species. Where the species are not present at a project or activity site, section 7 consultations will not consider jeopardy to the species but will consider the potential for adverse modification of critical habitat. In much of the unoccupied critical habitat area, the presence of the Blackburn's sphinx moth (*Manduca blackburni)* provides extensive baseline protection that includes offsetting loss of habitat. Blackburn's sphinx moth was listed as an endangered species under the Act on February 1, 2000 (65 FR 4770), and critical habitat was designated for the moth on June 10, 2003 (68 FR 34710). Approximately 42 percent of the proposed critical habitat designation for the Maui Nui species overlaps with the range of the Blackburn's sphinx moth. Within this overlapping area, projects and activities have been subject to section 7 consultation considering the potential effects on Blackburn's sphinx moth over the last 12 years. The Service has regularly recommended conservation offsets to ensure projects and activities avoid jeopardy to the sphinx moth. A number of the projects identified as occurring within the proposed critical habitat area for the Maui Nui species have already been subject to recommendations to incorporate conservation offsets to avoid adversely affecting the sphinx moth. The native vegetation required by the Blackburn's sphinx moth is often identical to, or coexists with, the physical or biological features that are essential to the conservation of the Maui Nui species. Thus, actions to promote native vegetation supporting the Blackburn's sphinx moth will also be beneficial in establishing and providing ecosystems that support plant species identified as essential elements of the physical or biological features of critical habitat for the Maui Nui species, and thus would be adequate to conserve the proposed critical habitat. Therefore, in these areas of overlap with the range of the Blackburn's sphinx moth, in general we do not anticipate additional conservation recommendations as a consequence of critical habitat designation for the Maui Nui species beyond those already in place for the Blackburn's sphinx moth.

The designation of critical habitat may, under certain circumstances, affect actions that do not have a Federal nexus and thus are not subject to the provisions of section 7 under the Act. Indirect impacts are those unintended changes in economic behavior that may occur outside of the Act, through other Federal, State, or local actions, and that are caused by the designation of critical habitat. Chapter 2 of the DEA discusses the common types of indirect impacts that may be associated with the designation of critical habitat, such as time delays, regulatory uncertainty, and negative perceptions related to critical habitat designation on private property. These types of impacts are not always

considered incremental. In the case that these types of conservation efforts and economic effects are expected to occur regardless of critical habitat designation, they are appropriately considered baseline impacts in this analysis.

Critical habitat may generate incremental economic impacts through implementation of additional conservation measures (beyond those recommended in the baseline) and additional administrative effort in section 7 consultation to ensure that projects or activities do not result in adverse modification of critical habitat. However, as described above and in Chapter 2 of the DEA, where critical habitat is considered occupied by the Maui Nui species, critical habitat designation is expected to have a more limited effect on economic activities, since section 7 consultation would already occur due to the presence of the species. Although we recognize that the standards for jeopardy and adverse modification of critical habitat are not the same, with the latter focusing more closely on effects to conservation of the species, in this case and for the reasons described above, the designation of critical habitat in occupied areas would likely result only in incremental effects over and above the costs associated with consultation due to the presence of the species. Furthermore, where proposed critical habitat overlaps with the probable range of the endangered Blackburn's sphinx moth, economic activities are already subject to conservation measures that benefit the Maui Nui species and their critical habitat. The focus of the DEA is projects that are reasonably likely to occur, including but not limited to activities that are currently authorized, permitted, or funded, or for which proposed plans are currently available to the public. All of the projects considered reasonably likely to occur in the DEA are in units that are occupied by the Maui Nui species. Critical habitat designation is therefore expected to have a limited effect on these areas. The majority of the proposed critical habitat area is most likely unsuitable for development, farming, or other economic activities due to the rugged mountain terrain and remote location. As a result, there is likely limited overlap between development, grazing and farming activities, or other economic activities, and proposed critical habitat.

For all ongoing and currently planned projects identified in the DEA, conservation offsets have been implemented or are currently being planned, even absent critical habitat designation, that the Service believes may also avoid adverse modification, although such projects would need to be evaluated on a case-by-case basis if and when critical habitat is designated. Therefore, for most of these projects, incremental impacts of critical habitat designation are expected to be limited to the costs of additional administrative effort in section 7 consultations to consider adverse modification, as described in Chapters 3 and 4 of the DEA. The proposed Honua'ula development, a master-planned community with residential, commercial, and recreational uses on the island of Maui, is an exception. The developer, Honua'ula Partners, LLC, has been working with the Service to develop a habitat conservation plan (HCP) as part of its application for an incidental take permit. In the course of developing this HCP, Honua'ula Partners has implemented some additional conservation measures that are considered an incremental impact of the proposed critical habitat designation, as they were not planned prior to the proposed designation. As a result, the DEA identifies additional costs above and beyond the additional administrative effort in section 7 consultations to consider adverse modification for the Honua'ula development. For the Honua'ula project, the DEA considers the costs of fencing, outplanting, and additional potentially recommended measures, such as removal of invasive plant species, as incremental costs associated with the proposed critical habitat designation.

The DEA monetizes the incremental impacts of critical habitat designation where sufficient data are readily available. We estimate that the critical habitat designation would result in a total present value impact of approximately $100,000 (7 percent discount rate) to development activities in two proposed units (a total annualized impact of $20,000 over 10 years). All impacts would likely occur soon after we adopt a final designation (i.e., in 2013), or are currently occurring. These impacts are associated with two development projects identified as likely to occur within the proposed critical habitat area: Advanced Technology Solar Telescope Expansion at Haleakala Observatories (Maui-Alpine-Unit 1) and Honua'ula development project in Kihei, Maui (Maui—Lowland Dry—Unit 3). These impacts reflect additional administrative effort as part of future section 7 consultation on both projects, and for the Honua'ula project, additional habitat conservation measures implemented as a result of proposed critical habitat designation.

In addition, we estimate a total present value impact of $10,000 over the next 10 years across two proposed units (an annualized impact of approximately $1,000) for consultations regarding energy projects. Impacts on energy projects in areas being considered for exclusion are expected to be $5,000 across two proposed units (an annualized impact of $700). These costs reflect additional administrative effort to consider critical habitat designation as part of formal consultation on three proposed energy developments.

The DEA also evaluates potential impacts where data limitations prevent quantification (''unquantified impacts''). The key category of unquantified impacts is the potential for a reduction in land value associated with real or perceived land use restrictions associated with the designation of critical habitat, in particular on grazing or farmland. In the case that critical habitat designation directly or indirectly limits future land use activities (e.g., subdivision), land values would be reduced by an amount equivalent to the fraction of the total land value associated with foregone potential future uses. Lacking information on whether such restrictions may occur, or whether potential buyers may perceive the potential for such restrictions and be unwilling to pay as much for land, we are unable to monetize these impacts. The analysis does, however, qualitatively discuss the potential for land value impacts and highlights the most vulnerable proposed units. Specifically, we identify the following categories of unquantified impacts:

(1) Future development projects. We identified four proposed critical habitat units that may be subject to future development pressure based on communication with local planners and stakeholders. No specific plans exist, however, for development in these units. To the extent that development is planned, critical habitat designation may result in recommendations for conservation as described in Chapter 3 of the DEA. Lacking data and information about the likelihood and characteristics of development, potential impacts are not quantified.

(2) Grazing and Farming. Twenty-three of the proposed critical habitat units overlap with parcels identified as supporting grazing; 13 of these units include areas being considered for exclusion. Ten of the proposed critical habitat units overlap with parcels identified as supporting farming activities; five of these units include areas being considered for exclusion. While critical habitat is unlikely to directly affect these activities through

section 7 consultation, stakeholders are concerned that: (a) The designation would result in changes in the way that the State or county manage these lands; and (b) critical habitat would generate perceptional effects on land values to the extent that potential buyers expect future economic opportunities on these lands to be restricted in some way. These potential impacts are not quantified due to substantial uncertainty regarding their magnitude; they are, however, provided for consideration regarding potential effects of critical habitat on farming and grazing, as discussed in Chapter 5 of the DEA.

As we stated earlier, we are soliciting data and comments from the public on the draft economic analysis, as well as all aspects of the proposed rule and our amended required determinations. We may revise the proposed rule or supporting documents to incorporate or address information we receive during the public comment period. In particular, we may exclude an area from critical habitat if the Secretary determines that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of the species.

Required Determinations—Amended

In our June 11, 2012, proposed rule (77 FR 34464), we indicated that we would defer our determination of compliance with several statutes and executive orders until the information concerning potential economic impacts of the designation and potential effects on landowners and stakeholders became available in the draft economic analysis. We have now made use of the draft economic analysis data to make these determinations. In this document, we affirm the information in our proposed rule concerning Executive Order (E.O.) 12866 (Regulatory Planning and Review), E.O. 12630 (Takings), E.O. 13132 (Federalism), E.O. 12988 (Civil Justice Reform), the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.,*) the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), and the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951). However, based on the draft economic analysis data, we are amending our required determinations concerning the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) and E.O. 13211 (Energy, Supply, Distribution, and Use).

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. Based on our draft economic analysis of the proposed designation, we are certifying that the critical habitat designation for the 135 Maui Nui species, if adopted as proposed, will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities, such as: (1) Agricultural, commercial, and residential development; (2) transportation; and (3) livestock grazing and other human activities. We apply the ''substantial number'' test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define ''substantial number'' or ''significant economic impact.'' Consequently, to assess whether a ''substantial number'' of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only has regulatory effects on activities authorized, funded, or carried out by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and will not be affected by critical habitat designation. In areas where any of the 135 Maui Nui species are present, Federal agencies are already required to consult with us under section 7 of the Act on activities they authorize, fund, or carry out that may affect the species. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities (see *Application of the ''Adverse Modification'' Standard* section of the proposed rule (June 11, 2012; 77 FR 34464)).

In the draft economic analysis, we evaluated the potential economic effects on small entities resulting from implementation of conservation actions related to the proposed designation of critical habitat for the 135 Maui Nui species. Quantified incremental impacts that may be borne by small entities are limited to the administrative costs of section 7 consultation related to residential and commercial development, and renewable energy development (IEc 2012, Appendix A). These impacts are relatively limited because relatively few new projects are anticipated within the proposed critical habitat designation, all areas in which

such development is considered reasonably likely to occur are occupied by one or more of the Maui Nui species, and, as described above, the Service does not expect to recommend additional or different conservation for the species due to critical habitat designation (IEc 2012, p. 1–8).

The Service's current understanding of recent case law is that Federal agencies are only required to evaluate the potential impacts of rulemaking on those entities directly regulated by the rulemaking; therefore, they are not required to evaluate the potential impacts to those entities not directly regulated. The designation of critical habitat for an endangered or threatened species only has a regulatory effect where a Federal action agency is involved in a particular action that may affect the designated critical habitat. Under these circumstances, only the Federal action agency is directly regulated by the designation, and, therefore, consistent with the Service's current interpretation of RFA and recent case law, the Service may limit its evaluation of the potential impacts to those identified for Federal action agencies. Under this interpretation, there is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated, such as small businesses. However, Executive Orders 12866 and 13563 direct Federal agencies to assess costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consequently, it is the current practice of the Service to assess to the extent practicable these potential impacts if sufficient data are available, whether or not this analysis is believed by the Service to be strictly required by the RFA. In other words, while the effects analysis required under the RFA is limited to entities directly regulated by the rulemaking, the effects analysis under the Act, consistent with the E.O. regulatory analysis requirements, can take into consideration impacts to both directly and indirectly impacted entities, where practicable and reasonable.

In doing so, we focus on the specific areas proposed to be designated as critical habitat and compare the number of small business entities potentially affected in that area with other small business entities in the region, instead of comparing the entities in the proposed area of designation with entities nationally, which is more commonly done. This analysis results in an estimation of a higher number of small businesses potentially affected. In this proposed rulemaking, we calculate that 0.1 percent of the total small entities engaged in residential and commercial development may be affected if and when a final rule becomes effective (IEc 2012, p. A–5). If we were to calculate that value based on the proportion nationally, then our estimate would be significantly lower. In addition, potential economic impacts to small entities are conservatively estimated as 2 percent of annual revenues for entities in the development industry and less than 0.1 percent of entities in the energy industry (IEc 2012, p. A–8). Therefore, we conclude that the economic impacts are not significant. Following our evaluation of potential effects to small business entities from this proposed rulemaking, we conclude that the number of potentially affected small businesses is not substantial, and that the economic impacts are not significant.

Development. Chapter 3 of the DEA discusses the potential for Maui Nui critical habitat to affect development projects. Our evaluation applied the following method: (1) Identify currently planned development activities across the proposed critical habitat area; (2) identify baseline conservation measures relevant to the identified projects due to the presence of the Maui Nui species or other listed species, such as the Blackburn's sphinx moth; (3) determine whether critical habitat is likely to generate additional conservation recommendations or otherwise change the scope or scale of the proposed projects; and (4) quantify the incremental administrative costs of consultation on the identified projects, and any incremental conservation efforts. In addition, we considered particular areas in which no specific plans for projects exist but for which future development is reasonably likely to occur.

Two development projects are identified as occurring within Maui Nui proposed critical habitat within the timeframe of the analysis: The Advanced Technology Solar Telescope expansion and the Honua'ula project. The two entities undertaking these projects are the University of Hawaii's Institute for Astronomy and Honua'ula Partners, LLC, respectively. The University of Hawaii, with total revenues of over $25.5 million, is not considered a small entity. Honua'ula Partners, LLC, is a division of Wailea 670 Associates, Inc. Because revenue information was not readily available for Wailea 670 Associates, Inc., we make the conservative assumption that it is a small entity. This one entity represents 0.1 percent of the total small entities engaged in residential and commercial development in the proposed critical habitat. The estimated third party cost to Wailea 670 Associates, Inc. of participating in the forecast consultation, which is a reinitiation of an informal consultation, is approximately $125,000 (reflecting both administrative effort and implementation of conservation recommendations, as described above). We estimate that this cost represents approximately 2 percent of the entity's annual revenues, which we do not consider to be a significant economic impact.

The Honua'ula development project is a proposed master-planned community in Kihei, Maui, which includes residential, commercial, and retail mixed uses; on-site recreational amenities; open space; and an 18-hole golf course and related facilities. The proposed project site consists of 670 acres of land, 170 of which overlap with proposed critical habitat Maui—Lowland Dry—Unit 3. The Honua'ula project planning has been underway for over 10 years and has involved State and Federal agencies and community groups. The developer, Honua'ula Partners, LLC, has been working with the Service to develop an HCP as part of its application for an incidental take permit. The draft HCP considers impacts of the project on Blackburn's sphinx moth and the nēnē (Hawaiian goose, *Branta sandvicensis*), as well as the Maui Nui species. The draft HCP includes a variety of conservation measures, including a 40-acre, on-site conservation easement (''the Native Plant Preservation Area'') and 354 acres of offsite conservation easements. Following publication of the proposed critical habitat rule for the Maui Nui species, the Service reviewed the draft HCP with respect to potential adverse effects on critical habitat. Specifically, because the project is expected to result in the loss of 119.5 acres of lowland dry critical habitat, the Service recommended that Honua'ula Partners:

(1) Increase habitat offsets by 35 acres within lowland dry proposed critical habitat. Prior to the proposed rule, the Service had recommended offsetting habitat loss at a 2:1 ratio. As a result of proposed critical habitat, the Service recommended that the offsets occur within lowland dry critical habitat (although it did not recommend an increase in the 2:1 ratio). While the 394 acres of conservation easements exceeded the Service's suggested offset ratio, a portion of the planned offset area falls outside of lowland dry critical habitat, generating a recommendation from the Service to increase the area that is being conserved in lowland dry proposed critical habitat by 35 acres.

(2) Increase outplanting efforts for 10 of the species for which Maui—Lowland Dry—Unit 3 is proposed to conserve.

In response to these recommendations, Honua'ula Partners is undertaking the following additional measures. We consider the costs of these measures as incremental impacts of the critical habitat designation, as they were not planned prior to the proposed designation: (1) Honua'ula Partners will provide an additional $125,000 to contribute to a fencing project on 35 acres of land within lowland dry critical habitat, and perform fence maintenance through the permit period; and (2) Honua'ula Partners will include in their outplanting efforts nine plant species for which Maui Lowland Dry 03 is proposed to conserve (in addition to the awikiwiki (*Canavalia pubescens),* which was already included in the outplanting effort prior to the proposed critical habitat designation). According to Honua'ula Partners, this measure will not result in any additional cost. In addition, Honua'ula Partners noted that the Service made additional recommendations regarding fire break measures, invasive plant species removal, and the extent of nonnative species cover.

In addition to the $125,000 cost associated with the implementation of these conservation measures for the Honua'ula project, we expect that there would be a reinitiated informal section 7 consultation in 2013 (following critical habitat designation) to consider adverse modification of critical habitat. The total incremental administrative costs associated with this section 7 consultation are estimated to be $5,000.

Renewable Energy Development. Chapter 4 of the DEA discusses the potential for Maui Nui critical habitat designation to affect renewable energy development activities. Our evaluation applied the following method: (1) Identify currently planned energy projects across the proposed critical habitat area; (2) identify baseline regulations of energy developments that provide conservation protection to the Maui Nui species within the proposed critical habitat area; (3) determine whether critical habitat would be likely to generate additional conservation recommendations or otherwise change the scope or scale of the proposed projects; and (4) quantify the incremental administrative costs of consultation on the identified projects, and any incremental conservation efforts.

Overall, three projects are forecast to occur within Maui Nui proposed critical habitat during the timeframe of the analysis. The Service anticipates consultation on all of these projects, but, as detailed below, we do not expect critical habitat designation would generate recommendations for additional conservation measures associated with these projects. The entities undertaking these projects are: (1) Molokai Renewables, LLC, a joint venture between Pattern Energy Group LP and Bio-Logical Capital, LLC; (2) Castle & Cooke Resorts, LLC; and (3) ORMAT Technologies, Inc. With revenues in the hundreds of millions of dollars annually, ORMAT Technologies, Inc., is not considered to be a small entity. Revenue information was not available for the other two entities undertaking energy projects. We therefore make the conservative assumption that these two entities are small. The per-entity cost to participate in the consultation is approximately $1,000 on an annualized basis, as described below. We estimate that this cost represents less than 0.1 percent of annual revenues, which we do not consider to be a significant economic impact. Here we detail our analysis of these three anticipated energy projects.

The Molokai Renewables Wind Project (MRWP) is a wind energy project in the early planning stages, located on the island of Molokai. Construction for the project is not expected to begin until 2018. The developer, Pattern Energy, LLC, is proposing to construct wind turbines, access roads, a high voltage DC converter station, and transmission cables on lands owned by Molokai Ranch. While the exact location and extent of ground disturbance related to the project is uncertain at this time, it is expected that turbines, access roads, and the converter station will be located north of proposed Molokai—Lowland Dry—Unit 1 and inland from proposed Molokai—Coastal—Unit 1, but will not occur within the proposed units themselves. Several potential alternative locations are being considered for the transmission cable, which will transmit electricity produced on Molokai to Oahu, including one route near, but not overlapping, proposed Molokai—Coastal—Unit 2. Although current plans for the MRWP do not overlap Maui Nui proposed critical habitat, siting of the MRWP is in the early planning stages and is highly uncertain, and the potential for overlap exists. However, in conversations with Pattern Energy regarding potential economic impacts to the MRWP, representatives from the company indicated that they expect minimal effects of the proposed critical habitat on the siting of their project, including cabling operations. According to the firm, any potential MRWP facilities located in proposed critical habitat would be relocated to avoid impacts to critical habitat with no increase in the price or production cost of energy (i.e., no quantifiable economic impacts). In addition, as described above, even absent critical habitat designation, the Hawaii Clean Energy Programmatic Environmental Impact Statement provides strong baseline regulatory protections, requiring that energy projects avoid effects on listed species and their habitats. Accordingly, we do not anticipate incremental project modifications related to the MRWP, and the effects of critical habitat would be limited to incremental administrative effort as part of a future formal section 7 consultation on this project.

Castle & Cooke is proposing to install approximately 67 wind turbines on lands owned by Lanai Resorts, LLC, on the northwest portion of Lanai. The Lanai Wind Project (LWP) would generate wind energy to be transmitted to Oahu by undersea cable. The wind turbines would span a total area of approximately 7,000 acres, including five turbines and access roads on a small portion of proposed Lanai—Lowland Mesic—Unit 1. As the LWP is currently in early planning stages, the exact locations of structures and access roads generating ground disturbance remain uncertain. It is unlikely, however, that the project would be subject to additional conservation due to the critical habitat designation because Castle & Cooke have indicated that the project will have a very limited physical footprint and only affect poor quality habitat. Castle & Cooke suggest the area that they are planning for construction of this project is unlikely to contain the physical and biological features of critical habitat for the Maui Nui species due to the existing level of degradation. In addition, they suggest the level of ground disturbance associated with the project will be limited as all access roads associated with the LWP will be located on existing roadways. In the Service's experience, habitat impacts from the installation of wind turbines are, in general, minor, due to the limited project footprint of a wind turbine tower. However, even in the case that the level of ground disturbance constitutes adverse modification, the project would already be subject to considerable conservation measures as identified by the Hawaii Clean Energy Programmatic Environmental Impact Statement (PEIS). It is therefore likely the project would avoid adverse modification of Maui Nui critical habitat even absent a designation. The DEA

therefore expects that the effects of critical habitat would be limited to incremental administrative effort as part of a future formal section 7 consultation on this project.

ORMAT Technologies, Inc., based in Nevada, is a geothermal power plant developer. ORMAT has filed an EIS Preparation Notice (EISPN) related to the Ulupalakua Geothermal Project (UGP) located on Ulupalakua Ranch and State-owned lands adjacent to Ulupalakua Ranch on the southern tip of Maui. The UGP received Department of Energy (DOE) funding for this project. According to the action area described in the EISPN for Ulupalakua Geothermal Mining Lease, it is likely that only portions of the currently operational ''Geothermal Resource Subzone'' (GRS) overlap proposed critical habitat. The extent to which the project may affect critical habitat is therefore uncertain. Furthermore, as described in the June 11, 2012, proposed rule (77 FR 34464), Ulupalakua Ranch lands are identified for potential exclusion from critical habitat due to the existing management of the land. For the reasons discussed above for the LWP, it is most likely that the UGP will avoid impacts that would amount to adverse modification of critical habitat for the Maui Nui species, even absent a designation. This is due to the limited overlap of the project with the proposed critical habitat area, and the expected management of these projects as described by the PEIS. According to the PEIS, the DOE intends to avoid impacts of renewable energy projects on listed species and habitats even absent critical habitat designation. The DEA therefore expects that the effects of critical habitat will be limited to incremental administrative effort as part of a future formal section 7 consultation on this project.

To calculate administrative costs, we multiplied the expected number of consultations in each unit by estimated per-consultation administrative costs. As all three energy projects have entered the permitting process, the analysis assumes that each project would be required to consult the Service if and when critical habitat is finalized (in 2013). Overall, the DEA finds that total present value impacts to energy projects in areas proposed for critical habitat designation amount to $10,000 over the next 10 years (or $1,000 on an annualized basis). Impacts on energy projects in areas identified for potential exclusion are expected to be $5,000 (present value). The relatively low level of impact on energy projects reflects two factors: (1) The limited number of future projects identified within or affecting the proposed critical habitat area; and (2) the likely substantial level of conservation incorporated into future energy projects even absent a Maui Nui critical habitat designation.

As the number of renewable energy development projects is growing in Hawaii, additional businesses may be subject to consultation if and when we finalize Maui Nui critical habitat. As described above, however, we expect the estimated $1,000 incremental cost to be a small fraction of annual revenues for these businesses. The field of renewable energy development within the areas proposed as critical habitat for the 135 Maui Nui species is evolving, and uncertainty exists concerning the scope of companies that may engage in these activities. Therefore, the relative percentage of the small business entities engaged in these activities is uncertain and speculative. However, the costs that these two identified companies would incur represent less than 0.1 percent of annual revenues, which we do not consider to be a significant economic impact.

In summary, we have considered whether this proposed designation, if finalized as proposed, will result in a significant economic impact on a substantial number of small entities and the energy industry. Information for this analysis was gathered from the SBA, stakeholders, and Service files. We determined that 0.1 percent of the small entities may be affected if and when this final rule becomes effective (IEc 2012, p. A–5), and we do not consider this to be a substantial number of small entities. Furthermore, we determined that the economic impacts to small businesses are estimated at less than 2 percent of annual revenues for development businesses and less than 0.1 percent of annual revenues for energy businesses (IEc 2012, p. A–8), which we do not consider to be significant economic impacts. Therefore, we are certifying that the designation of critical habitat for the 135 Maui Nui species will not have a significant economic impact on a substantial number of small entities, and an initial regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute ''a significant adverse effect'' when compared to not taking the regulatory action under consideration.

In Chapter 4 of the DEA, renewable energy projects, including wind and geothermal developments, that are planned within the timeframe of the analysis are expected to be subject to section 7 consultation considering potential effects on proposed critical habitat for the Maui Nui species. This analysis concludes that impacts of a critical habitat designation on these activities would be most likely limited to additional administrative costs of section 7 consultation. Consequently, reductions in oil and natural gas production are not anticipated and administrative consultation costs ($900 per consultation) are not anticipated to reduce energy production or increase the cost of energy production or distribution in the United States in excess of 1 percent. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Authors

The primary authors of this notice are the staff members of the Pacific Islands Fish and Wildlife Office, Pacific Region, U.S. Fish and Wildlife Service.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: January 23, 2013.

Michael J. Bean,

Acting Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2013–02002 Filed 1–30–13; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[Docket No. 121210694–3087–01]

RIN 0648–XC392

Fisheries Off West Coast States; Coastal Pelagic Species Fisheries; Annual Specifications

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule.

SUMMARY: NMFS proposes to implement an annual catch limit (ACL), harvest

guideline (HG), and associated annual reference points for Pacific sardine in the U.S. exclusive economic zone (EEZ) off the Pacific coast for the fishing season of January 1, 2013, through December 31, 2013. This rule is proposed according to the Coastal Pelagic Species (CPS) Fishery Management Plan (FMP). The proposed 2013 maximum HG for Pacific sardine is 66,495 metric tons (mt). The proposed initial overall commercial fishing HG, that is to be allocated across the three allocation periods for sardine management, is 57,495 mt. This amount would be divided across the three seasonal allocation periods for the directed fishery the following way: January 1–June 30—19,123 mt; July 1–September 14—22,998 mt; and September 15–December 31—13,374 mt with an incidental set-aside of 1,000 mt for each of the three periods. This rule is intended to conserve and manage the Pacific sardine stock off the U.S. West Coast.

DATES: Comments must be received by March 4, 2013.

ADDRESSES: You may submit comments on this document identified by NOAA–NMFS–2013–0005 by any of the following methods:

- *Electronic Submissions:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2013-0005,* click the ''Comment Now!'' icon, complete the required fields, and enter or attach your comments.
- *Mail:* Submit written comments to Rodney R. McInnis, Regional Administrator, Southwest Region, NMFS, 501 West Ocean Blvd., Suite 4200, Long Beach, CA 90802.
- *Fax:* (562) 980–4047

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only.

Copies of the report ''Assessment of Pacific Sardine Stock for U.S. Management in 2013'' and the Environmental Assessment/Regulatory Impact Review for this action may be obtained from the Southwest Regional Office (see **ADDRESSES**).

FOR FURTHER INFORMATION CONTACT: Joshua Lindsay, Southwest Region, NMFS, (562) 980–4034.

SUPPLEMENTARY INFORMATION: During public meetings each year, the estimated biomass for Pacific sardine is presented to the Pacific Fishery Management Council's (Council) Coastal Pelagic Species (CPS) Management Team (Team), the Council's CPS Advisory Subpanel (Subpanel) and the Council's Scientific and Statistical Committee (SSC), and the biomass and the status of the fisheries are reviewed and discussed. The biomass estimate is then presented to the Council along with the calculated overfishing limit (OFL), available biological catch (ABC), annual catch limit (ACL) and harvest guideline (HG), along with recommendations and comments from the Team, Subpanel and SSC. Following review by the Council and after hearing public comment, the Council adopts a biomass estimate and makes its catch level recommendations to the National Marine Fisheries Service (NMFS).

The purpose of this proposed rule is to implement the ACL, HG and other annual catch reference points for 2013, including the OFL and an ABC that takes into consideration uncertainty surrounding the current estimate of biomass for Pacific sardine in the U.S. EEZ off the Pacific coast. The CPS FMP and its implementing regulations require NMFS to set these annual catch levels for the Pacific sardine fishery based on the annual specification framework in the FMP. This framework includes a harvest control rule that determines the maximum HG, the primary management target for the fishery, for the current fishing season. The HG is based, in large part, on the current estimate of stock biomass. The harvest control rule in the CPS FMP is HG = [(Biomass − Cutoff) * Fraction * Distribution] with the parameters described as follows:

1. *Biomass.* The estimated stock biomass of Pacific sardine age one and above for the 2012 management season is 659,539 mt.

2. *Cutoff.* This is the biomass level below which no commercial fishery is allowed. The FMP established this level at 150,000 mt.

3. *Distribution.* The portion of the Pacific sardine biomass estimated in the EEZ off the Pacific coast is 87 percent and is based on the average historical larval distribution obtained from scientific cruises and the distribution of the resource according to the logbooks of aerial fish-spotters.

4. *Fraction.* The harvest fraction is the percentage of the biomass above 150,000 mt that may be harvested.

At the November 2012 Council meeting, the Council adopted the 2013 Stock Assessment of the Pacific sardine resource completed by NMFS Southwest Fisheries Science Center and the resulting Pacific sardine biomass estimate of 659,539 mt. Based on recommendations from its SSC and other advisory bodies, the Council recommended and NMFS is proposing, an OFL of 103,284 mt, ABC of 94,281 mt, an ACL of 94,281 mt (equal to the ABC) and a maximum HG (HGs under the CPS FMP are operationally similar to annual catch targets (ACT)) of 66,495 metric tons (mt) for the 2013 Pacific sardine fishing year. Due to an approximately 33 percent decrease in the biomass estimate from 2012, the result of the HG formula is approximately 40,000 mt less than the 2012 HG. As described above, annual biomass estimates are a parameter of the various harvest control rules, therefore as estimated biomass decreases or increases from one year to the next, the resulting allowable catch levels, such as the HG, will necessarily decrease or increase too. These catch specifications are based on the most recent stock assessment and the control rules established in the CPS FMP.

The Council also recommended, and NMFS is proposing, that 57,495 mt be used as the initial overall commercial fishing HG to be allocated across the three allocation periods for sardine management. This number has been reduced from the maximum HG of 66,495 mt by 9,000 mt: (i) For potential harvest by the Quinault Indian Nation of up to 6,000 mt; and (ii) 3,000 mt, which is initially reserved for potential use under an exempted fishing permit(s) (EFPs). The Council also recommended and NMFS is proposing that incidental catch set asides be put in place for each allocation period. The purpose of the incidental set-aside allotments and allowance of an incidental catch-only fishery is to allow for the restricted incidental landings of Pacific sardine in other fisheries, particularly other CPS fisheries, when a seasonal directed fishery is closed to reduce bycatch and allow for continued prosecution of other important CPS fisheries. These incidental set asides are allocated as shown in the following table, which also shows the adjusted directed harvest levels for each period in metric tons:

	January 1–June 30	July 1–September 14	September 15–December 31	Total
Total Seasonal Allocation	20,123 (35%)	22,998 (40%)	14,374 (25%)	57,495
Incidental Set Aside	1,000	1,000	1,000	3,000
Adjusted Directed Harvest Allocation	19,123	22,998	13,374	54,495

Although the 2013 HG is well below that of the ACL, additional inseason accountability measures are in place to ensure the fishery stays within the HG. If during any of the seasonal allocation periods the applicable adjusted directed harvest allocation is projected to be taken, fishing would be closed to directed harvest and only incidental harvest would be allowed. For the remainder of the period, any incidental Pacific sardine landings would be counted against that period's incidental set-aside. As an additional accountability measure, the proposed incidental fishery would also be constrained to a 40 percent by weight incidental catch rate when Pacific sardine are landed with other CPS so as to minimize the targeting of Pacific sardine and reduce potential discard of sardine. In the event that an incidental set-aside is projected to be attained, the incidental fishery will be closed for the remainder of the period. If the set-aside is not fully attained or is exceeded in a given seasonal period, the directed harvest allocation in the following seasonal period would automatically be adjusted upward or downward accordingly to account for the discrepancy. Additionally, if during any seasonal period the directed harvest allocation is not fully attained or is exceeded, then the following period's directed harvest total would be adjusted to account for the discrepancy.

If the total HG or these apportionment levels for Pacific sardine are reached or are expected to be reached, the Pacific sardine fishery would be closed until it re-opens either per the allocation scheme or at the beginning of the next fishing season. The NMFS Southwest Regional Administrator would publish a notice in the **Federal Register** announcing the date of any such closure.

The Council will hear proposals and comments on any potential EFPs at the March 2013 Council meeting and will make a final recommendation to NMFS on whether or not all or a portion of the 3,000 mt EFP set-aside should be allocated for use under any EFP(s). NMFS will likely make a decision on whether to issue an EFP for Pacific sardine sometime prior to the start of the second seasonal period (July 1, 2013). Any of the 3,000 mt that is not issued to an EFP will be rolled into the third allocation period's directed fishery. Any set-aside attributed to an EFP designed to be conducted during the closed fishing time in the second allocation period (prior to September 15), but not utilized, will roll into the third allocation period's directed fishery. Any set-aside attributed to an EFP designed to be conducted during closed fishing times in the third allocation, but not utilized, will not be re-allocated.

In 2012 the Quinault Indian Nation requested, and NMFS approved, a 9,000 mt tribal set-aside for the exclusive right to harvest Pacific sardine in the Quinault Usual and Accustomed Fishing Area off the coast of Washington State, pursuant to the 1856 Treaty of Olympia (Treaty with the Quinault). For the 2013 fishing season the Quinault Indian Nation has again requested that NMFS provide the Quinault with a tribal set-aside. The Quinault Indian Nation as requested a 6,000 mt set-aside (3,000 mt less than was requested and approved in 2012) and NMFS is considering the request. If a set-aside is approved NMFS will likely consult with Quinault Department of Fisheries staff and Quinault Fisheries Policy representatives on or about September 1, 2013 to review Quinault catch to date, landings that have occurred in Oregon and Washington and any other relevant information in an attempt to project tribal catch for the remainder of the season. The purpose of this consultation will be to determine whether any part of the 2013 Quinault Indian Nation Pacific sardine set-aside of 6,000 mt can be moved into the non-tribal third period allocation that begins September 15, as occurred in 2012. In 2012, in part because only one Quinault vessel fished, out of the expected three, the Quinualt harvested only 1,294.23 mt. For 2013, the Quinault expect that two tribal vessels will fish actively for sardine.

The NMFS Southwest Regional Administrator will publish a notice in the **Federal Register** announcing the date of any closure to either directed or incidental fishing. Additionally, to ensure the regulated community is informed of any closure NMFS will also make announcements through other means available, including fax, email, and mail to fishermen, processors, and state fishery management agencies.

Detailed information on the fishery and the stock assessment are found in the report ''Assessment of the Pacific Sardine Resource in 2012 for U.S. Management in 2013'' (see **ADDRESSES**).

Classification

Pursuant to section 304(b)(1)(A) of the Magnuson-Stevens Fishery Conservation and Management Act, the Assistant Administrator, NMFS, has determined that this proposed rule is consistent with the CPS FMP, other provisions of the Magnuson-Stevens Fishery Conservation and Management Act, and other applicable law, subject to further consideration after public comment.

These proposed specifications are exempt from review under Executive Order 12866.

An Initial Regulatory Flexibility Analysis (IRFA) was prepared, as required by section 3 of the Regulatory Flexibility Act, 5 U.S.C. § 603. The IRFA describes the economic impact this proposed rule, if adopted, would have on small entities. A description of the action, why it is being considered, and the legal basis for this action are contained at the beginning of this section in the preamble and in the **SUMMARY** section of the preamble. The results of the analysis are stated below. For copies of the IRFA, and instructions on how to send comments on the IRFA, please see the **ADDRESSES** section above.

The purpose of this proposed rule is to implement the 2013 annual specifications for Pacific sardine in the U.S. EEZ off the Pacific coast. The CPS FMP and its implementing regulations require NMFS to set an OFL, ABC, ACL and HG or ACT for the Pacific sardine fishery based on the specified harvest control rules in the FMP. A specific harvest control rule is applied to the current stock biomass estimate to derive the annual HG which is used to manage the directed commercial take of Pacific sardine.

The HG is apportioned based on the following allocation scheme: 35 percent of the HG is allocated coastwide on January 1; 40 percent of the HG, plus any portion not harvested from the initial allocation is then reallocated coastwide on July 1; and on September

15 the remaining 25 percent, plus any portion not harvested from earlier allocations will be released. If the total HG or these apportionment levels for Pacific sardine are reached at any time, the Pacific sardine fishery will close until either it re-opens per the allocation scheme or the beginning of the next fishing season. There is no limit on the amount of catch that any single vessel can take during an allocation period or the year; the HG and seasonal allocations are available until fully utilized by the entire CPS fleet.

The U.S. Small Business Administration defines small businesses engaged in fishing as those vessels with annual revenues of or below $4 million. The small entities that would be affected by the proposed action are the vessels that compose the West Coast CPS small purse seine fleet. In 2012 there were approximately 96 vessels permitted to operate in the directed sardine fishery component of the CPS fishery off the U.S. West Coast; 55 vessels in the Federal CPS limited entry fishery off California (south of 39 N. lat.), and a combined 23 vessels in Oregon and Washington's state Pacific sardine fisheries. The annual per vessel revenue in 2012 for the West Coast CPS finfish fleet was well below $4 million; therefore, all of these vessels therefore are considered small businesses under the RFA. Because each affected vessel is a small business, this proposed rule has an equal effect on all of these small entities, and therefore will impact these small entities in the same manner.

The profitability of these vessels as a result of this proposed rule is based on the average Pacific sardine ex-vessel price per mt. NMFS used average Pacific sardine ex-vessel price per mt to conduct a profitability analysis because cost data for the harvesting operations of CPS finfish vessels was unavailable.

For the 2012 fishing year approximately 105,000 mt were available for harvest by the directed fishery. Approximately 95,000 mt (21,000 in California and 74,000 mt in Oregon and Washington) of this HG were harvested during the 2012 fishing season, for an estimated ex-vessel value of $20 million. Using these figures, the average 2012 ex-vessel price per mt of Pacific sardines was approximately $208.

The proposed directed commercial fishing HG for the 2013 Pacific sardine fishing season (January 1, 2013 through December 31, 2013) is 57,495 (mt). This HG is approximately 47,000 mt less than the allocation for 2012. If the fleet were to take the entire 2013 HG, and assuming a coastwide average ex-vessel price per mt of $204 (average of 2011 and 2012 ex-vessel), the potential revenue to the fleet would be approximately $12 million. Therefore the proposed rule will decrease the effected small entities' potential profitability compared to last season, due to the lower HG this fishing season. However, although there will likely be a drop in profitability to sardine harvesting vessels based on this rule compared to last season, from 2007 through 2011 the average coastwide annual ex-vessel revenue was $12.5 million; therefore, at current ex-vessel price per mt, the HG for 2013 should provide similar revenue to the five years preceding 2012. Furthermore, as occurred in 2012, unused sardine from the potential EFP or the release of any unused portion of the 6,000-mt set-aside for the Quinault Indian Nation might be used to supplement the amount available to the directed fishery during the third allocation period (September 15 through December 31), thereby slightly increasing the potential revenue to the fleet.

Additionally, revenue derived from harvesting Pacific sardine is typically only one factor determining the overall revenue for a majority of the vessels that harvest Pacific sardine; as a result, the economic impact to the fleet from the proposed action cannot be viewed in isolation. From year to year, depending on market conditions and availability of fish, most CPS/sardine vessels supplement their income by harvesting other species. Many vessels in California also harvest anchovy, mackerel, and in particular squid, making Pacific sardine only one component of a multi-species CPS fishery. For example, market squid have been readily available to the fishery in California over the last three years with total annual ex-vessel revenue averaging approximately $66 million over that time, compared to an annual average ex-vessel from sardine of $16 million over that same time period. Additionally, many sardine vessels that operate off of Oregon and Washington also fish for salmon in Alaska or squid in California during times of the year when sardine are not available.

These vessels typically rely on multiple species for profitability because abundance of sardine, like the other CPS stocks, is highly associated with ocean conditions and different times of the year, and therefore are harvested at various times and areas throughout the year. Because each species responds to ocean conditions in its own way, not all CPS stocks are likely to be abundant at the same time; therefore, as abundance levels and markets fluctuate, it has necessitated that the CPS fishery as a whole rely on a group of species for its annual revenues. Therefore, although there will be a potential reduction in sardine revenue for the small entities affected by this proposed action as compared to the previous season, it is difficult to predict exactly how this reduction will impact overall annual revenue for the fleet.

There are no significant alternatives to this proposed rule that would accomplish the stated objectives of the applicable statutes and would also minimize any significant economic impact of this proposed rule on the affected small entities. The CPS FMP and its implementing regulations require NMFS to set an annual HG for the Pacific sardine fishery based on the harvest formula in the FMP. The harvest formula is applied to the current stock biomass estimate to determine the HG. Therefore, if the estimated biomass decreases or increases from one year to the next, the HG will necessarily decrease or increase too. Because the current stock biomass estimate decreased from 2012 to 2013, the HG also decreased. Determining the annual HG merely implements the established procedures of the FMP with the goal of continuing to provide expected net benefits to the nation, regardless of what the specific allowable harvest of Pacific sardine is determined to be for 2013.

There are no reporting, record-keeping, or other compliance requirements required by this proposed rule. Additionally, no other Federal rules duplicate, overlap or conflict with this proposed rule.

This action does not contain a collection-of-information requirement for purposes of the Paper Reduction Act.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: January 25, 2013.

Alan D. Risenhoover,

Director, Office of Sustainable Fisheries, performing the functions and duties of the Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

[FR Doc. 2013–02012 Filed 1–30–13; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 665

[Docket No. 121107617–3050–01]

RIN 0648–XC351

Western Pacific Fisheries; 2013 Annual Catch Limits and Accountability Measures

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

ACTION: Proposed specification; request for comments.

SUMMARY: NMFS proposes annual catch limits for western Pacific bottomfish, crustacean, precious coral, and coral reef ecosystem fisheries, and accountability measures to correct or mitigate any overages of catch limits. The proposed catch limits and accountability measures support the long-term sustainability of fishery resources of the U.S. Pacific Islands

DATES: Comments must be received by February 15, 2013.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2012–0226, by either of the following methods:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *www.regulations.gov/#!docketDetail;D=NOAA–NMFS–2012–0226,* click the ''Comment Now!'' icon, complete the required fields, and enter or attach your comments.
- *Mail:* Send written comments to Michael D. Tosatto, Regional Administrator, NMFS Pacific Islands Region (PIR), 1601 Kapiolani Blvd., Suite 1110, Honolulu, HI 96814–4700.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (e.g., name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous), and will accept attachments to electronic comments in Microsoft Word, Excel, or Adobe PDF file formats only.

NMFS prepared three environmental assessments that describe the potential impacts on the human environment that would result from the proposed annual catch limits and accountability measures. Additional background information was also provided in the 2012 proposed and final specifications (77 FR 66, January 3, 2012, and 77 FR 6019, February 7, 2012). Copies of these documents are available from *www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Jarad Makaiau, NMFS PIR Sustainable Fisheries, 808–944–2108.

SUPPLEMENTARY INFORMATION: Fisheries in the U.S. Exclusive Economic Zone (EEZ, or Federal waters) around the U.S. Pacific Islands are managed under four archipelagic-based fishery ecosystem plans (FEP), including the American Samoa FEP, the Hawaii FEP, the Pacific Remote Islands FEP, and the Mariana FEP (covering Guam and the Commonwealth of the Northern Mariana Islands (CNMI)), and one FEP for pelagic fisheries. The FEPs were developed by the Western Pacific Fishery Management Council (Council) and implemented by NMFS under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Each FEP contains a process for the Council and NMFS to specify annual catch limits (ACLs) and accountability measures (AMs); that process is codified at 50 CFR 665.4 (76 FR 37285, June 27, 2011). The regulations require NMFS to specify, every fishing year, an ACL for each stock and stock complex of management unit species (MUS) included in an FEP, as recommended by the Council and in consideration of the best available scientific, commercial, and other information about the fishery. If an ACL is exceeded, the regulations require the Council to take action to reduce the ACL for the subsequent fishing year by the amount of the overage, or take other actions, as appropriate.

Specification of ACLs

NMFS proposes to specify ACLs for bottomfish, crustacean, precious coral, and coral reef ecosystem fishery MUS in American Samoa, Guam, the CNMI, and Hawaii. NMFS based the proposed specifications on recommendations from the Council at its 155th meeting held on October 29 to November 1, 2012. A total of 101 ACLs are proposed: 22 in American Samoa, 27 in Guam, 22 in the CNMI, and 30 in Hawaii. The ACLs would be specified for the 2013 fishing year (January 1 through December 31, 2013, except for precious coral fisheries, July 1, 2012, through June 30, 2013). The proposed ACLs are identical to those NMFS specified for these fisheries in 2012, except for the bottomfish fisheries where the proposed catch limits are slightly higher compared to 2012.

NMFS is not proposing ACLs for bottomfish, crustacean, precious coral, or coral reef ecosystem MUS in the PRIA because commercial fishing is prohibited out to 50 nautical miles by Presidential Proclamation 8336, which established the Pacific Remote Island Marine National Monument (74 FR 1565, January 12, 2009), and because there is no habitat to support such fisheries in the EEZ beyond the monument boundaries. The Council is separately working on an amendment to the PRIA FEP containing management measures to permit non-commercial fishing within the Pacific Remote Island Marine National Monument (as well as the Rose Atoll and Marianas Trench Marine National Monuments), and ensure non-commercial fishing, if allowed, is managed as a sustainable activity in accordance with provisions of Proclamation 8336. Additionally, NMFS is not proposing ACLs for MUS that are currently subject to Federal fishing moratoria or prohibitions. This includes all species of gold coral (73 FR 47098, August 13, 2008), all species of deepwater precious corals at the Westpac Bed Refugia (75 FR 2198, January 14, 2010), and the three Hawaii seamount groundfish: pelagic armorhead, alfonsin, and raftfish (75 FR 69015, November 10, 2010). The current prohibitions on fishing for these MUS serve as a functional equivalent of an ACL of zero.

NMFS is also not proposing ACLs for pelagic MUS at this time because it previously determined that pelagic species are subject to international fishery agreements or have a life cycle of approximately one year and, therefore, have statutory exceptions to the ACL requirements.

NMFS and the Council developed the proposed ACLs in accordance with the FEPs and Federal regulations. For Pacific Island crustacean, precious coral and coral reef ecosystem MUS, the Council, at its 155th meeting, recommended specifying the 2013 ACLs identical to the ACLs NMFS specified for these fisheries in 2012 (77 FR 6019, February 7, 2012). The data, methods, and procedures considered by the Council and its Scientific and Statistical Committee (SSC) in developing their respective fishing level recommendations for Pacific Island

crustacean, precious coral, and coral reef ecosystem MUS are described in the EAs for the 2012 ACLs, and in the proposed specifications (77 FR 66, January 3, 2012) and final specifications (77 FR 6019, February 7, 2012) for that action.

For Pacific Island bottomfish MUS, the Council recommended specifying the 2013 ACLs equal to the acceptable biological catch as established by its SSC at the 111th SSC meeting held October 24–26, 2012. The data, methods, and procedures considered by the SSC and the Council in developing their respective fishing level recommendations for Pacific Island bottomfish MUS are described in detail in the EA that supports this action.

Proposed Annual Catch Limit Specifications

TABLE 1—AMERICAN SAMOA

Fishery	Management unit species	Proposed ACL specification
Bottomfish	Bottomfish multi-species stock complex	101,000 lb (45,813 kg).
Crustacean	Deepwater Shrimp	80,000 lb (36,287 kg).
	Spiny Lobster	2,300 lb (1,043 kg).
	Slipper Lobster	30 lb (14 kg).
	Kona Crab	3,200 lb (1,451 kg).
Precious Coral	Black Coral	790 lb (358 kg).
	Precious Corals in the American Samoa Exploratory Area.	2,205 lb (1,000 kg).
Coral Reef Ecosystem	Acanthuridae—surgeonfish	19,516 lb (8,852 kg).
	Lutjanidae—snappers	18,839 lb (8,545 kg).
	Selar crumenophthalmus—atule or bigeye scad.	8,396 lb (3,808 kg).
	Mollusks—turbo snail; octopus; giant clams	16,694 lb (7,572 kg).
	Carangidae—jacks	9,490 lb (4,305 kg).
	Lethrinidae—emperors	7,350 lb (3,334 kg).
	Scaridae—parrotfish	8,145 lb (3,695 kg).
	Serranidae—groupers	5,600 lb (2,540 kg).
	Holocentridae—squirrelfish	2,585 lb (1,173 kg).
	Mugilidae—mullets	2,857 lb (1,296 kg).
	Crustaceans—crabs	2,248 lb (1,020 kg).
	Bolbometopon muricatum—bumphead parrotfish.	235 lb (107 kg).
	Cheilinus undulatus—Humphead (Napoleon) wrasse.	1,743 lb (791 kg).
	Carcharhinidae—Reef Sharks	1,309 lb (594 kg).
	All Other CREMUS combined	18,910 lb (8,577 kg).

TABLE 2—MARIANA ARCHIPELAGO—GUAM

Fishery	Management unit species	Proposed ACL specification
Bottomfish	Bottomfish multi-species stock complex	66,800 lb (30,300 kg).
Crustaceans	Deepwater Shrimp	48,488 lb (21,994 kg).
	Spiny Lobster	2,700 lb (1,225 kg).
	Slipper Lobster	20 lb (9 kg).
	Kona Crab	1,900 lb (862 kg).
Precious Coral	Black Coral	700 lb (318 kg).
	Precious Corals in the Guam Exploratory Area	2,205 lb (1,000 kg).
Cora Reef Ecosystem	Acanthuridae—surgeonfish	70,702 lb (32,070 kg).
	Carangidae—jacks	45,377 lb (20,583 kg).
	Selar crumenophthalmus—atulai or bigeye scad.	56,514 lb (25,634 kg).
	Lethrinidae—emperors	38,720 lb (17,563 kg).
	Scaridae—parrotfish	28,649 lb (12,995 kg).
	Mullidae—goatfish	25,367 lb (11,506 kg).
	Mollusks—turbo snail; octopus; giant clams	21,941 lb (9,952 kg).
	Siganidae—rabbitfish	26,120 lb (11,848 kg).
	Lutjanidae—snappers	17,726 lb (8,040 kg).
	Serranidae—groupers	17,958 lb (8,146 kg).
	Mugilidae—mullets	15,032 lb (6,818 kg).
	Kyphosidae—chubs/rudderfish	13,247 lb (6,009 kg).
	Crustaceans—crabs	5,523 lb (2,505 kg).
	Holocentridae—squirrelfish	8,300 lb (3,765 kg).
	Algae	5,329 lb (2,417 kg).
	Labridae—wrasses	5,195 lb (2,356 kg).
	Bolbometopon muricatum—bumphead parrotfish.	797 lb (362 kg) (CNMI and Guam combined).
	Cheilinus undulatus—Humphead (Napoleon) wrasse.	1,960 lb (889 kg).
	Carcharhinidae—Reef Sharks	6,942 lb (3,149 kg).

TABLE 2—MARIANA ARCHIPELAGO—GUAM—Continued

Fishery	Management unit species	Proposed ACL specification
	All Other CREMUS combined	83,214 lb (37,745 kg).

TABLE 3—MARIANA ARCHIPELAGO—CNMI

Fishery	Management unit species	Proposed ACL specification
Bottomfish	Bottomfish multi-species stock complex	228,000 lb (103,419 kg).
Crustacean	Deepwater Shrimp	275,570 lb (124,996 kg).
	Spiny Lobster	5,500 lb (2,495 kg).
	Slipper Lobster	60 lb (27 kg).
	Kona Crab	6,300 lb (2,858 kg).
Precious Coral	Black Coral	2,100 lb (953 kg).
	Precious Corals in the CNMI Exploratory Area	2,205 lb (1,000 kg).
Coral Reef Ecosystem	Lethrinidae—emperors	27,466 lb (12,458 kg).
	Carangidae—jacks	21,512 lb (9,758 kg).
	Acanthuridae—surgeonfish	6,884 lb (3,123 kg).
	Selar crumenophthalmus—atulai or bigeye scad.	7,459 lb (3,383 kg).
	Serranidae—groupers	5,519 lb (2,503 kg).
	Lutjanidae—snappers	3,905 lb (1,771 kg).
	Mullidae—goatfish	3,670 lb (1,665 kg).
	Scaridae—parrotfish	3,784 lb (1,716 kg).
	Mollusks—turbo snail; octopus; giant clams	4,446 lb (2,017 kg).
	Mugilidae—mullets	3,308 lb (1,500 kg).
	Siganidae—rabbitfish	2,537 lb (1,151 kg).
	Bolbometopon muricatum—bumphead parrotfish.	797 lb (362 kg) (CNMI and Guam combined).
	Cheilinus undulatus—Humphead (Napoleon) wrasse.	2,009 lb (911 kg).
	Carcharhinidae—Reef Sharks	5,600 lb (2,540 kg).
	All Other CREMUS combined	9,820 lb (4,454 kg).

TABLE 4—HAWAII

Fishery	Management unit species	Proposed ACL specification
Bottomfish	Non-Deep 7 Bottomfish	145,000 (65,771 kg).
Crustacean	Deepwater Shrimp	250,773 lb (113,749 kg).
	Spiny Lobster	10,000 lb (4,536 kg).
	Slipper Lobster	280 lb (127 kg).
	Kona Crab	27,600 lb (12,519 kg).
Precious Coral	Auau Channel Black Coral	5,512 lb (2,500 kg).
	Makapuu Bed—Pink Coral	2,205 lb (1,000 kg).
	Makapuu Bed—Bamboo Coral	551 lb (250 kg).
	180 Fathom Bank—Pink Coral	489 lb (222 kg).
	180 Fathom Bank—Bamboo Coral	123 lb (56 kg).
	Brooks Bank—Pink Coral	979 lb (444 kg).
	Brooks Bank—Bamboo Coral	245 lb (111 kg).
	Kaena Point Bed—Pink Coral	148 lb (67 kg).
	Kaena Point Bed—Bamboo Coral	37 lb (17 kg).
	Keahole Bed—Pink Coral	148 lb (67 kg).
	Keahole Bed—Bamboo Coral	37 lb (17 kg).
	Precious Corals in the Hawaii Exploratory Area.	2,205 lb (1,000 kg).
Coral Reef Ecosystem	*Selar crumenophthalmus*—akule or bigeye scad.	651,292 lb (295,421 kg).
	Decapterus macarellus—opelu or mackerel scad.	393,563 lb (178,517 kg).
	Carangidae—jacks	193,423 lb (87,735 kg).
	Mullidae—goatfish	125,813 lb (57,068 kg).
	Acanthuridae—surgeonfish	80,545 lb (36,535 kg).
	Lutjanidae—snappers	65,102 lb (29,530 kg).
	Holocentridae—squirrelfish	44,122 lb (20,013 kg).
	Mugilidae—mullets	41,112 lb (18,648 kg).
	Mollusks—turbo snails; octopus	28,765 lb (13,048 kg).
	Scaridae—parrotfish	33,326 lb (15,116 kg).
	Crustaceans—crabs	20,686 lb (9,383 kg).

TABLE 4—HAWAII—Continued

Fishery	Management unit species	Proposed ACL specification
	Carcharhinidae—Reef Sharks	111,566 lb (50,605 kg).
	All Other CREMUS combined	142,282 lb (64,538 kg).

Proposed Accountability Measures

Each fishing year, NMFS and local resource management agencies in American Samoa, Guam, the CNMI, and Hawaii collect information about MUS catches and apply them toward the appropriate ACLs. Pursuant to 50 CFR 665.4, when the ACL for a stock or stock complex is projected to be reached, based on available information, NMFS must notify permit holders that fishing for that stock or stock complex will be restricted in Federal waters on a specified date. The restriction serves as the AM to prevent an ACL from being exceeded, and may include, but is not limited to, closure of the fishery, closure of specific areas, changes to bag limits, or restrictions in effort. However, fisheries statistics are generally not available to NMFS until at least six months after the data has been collected. While the State of Hawaii has the capability to monitor and track the catch of seven preferentially-targeted bottomfish species in near-real time in comparison with NMFS specified ACLs (77 FR 56791, September 14, 2012), additional resources would be required to extend these capabilities to other bottomfish, crustacean, precious coral, and coral reef ecosystem MUS. Significant resources would also be required to support the establishment of in-season monitoring and tracking capabilities in American Samoa, Guam, and the CNMI.

Additionally, reliance on Federal logbook and reporting from Federal waters will not be sufficient to accurately monitor and track catches towards the proposed ACL specifications as the majority of fishing for bottomfish, crustacean, precious coral, and coral reef ecosystem fishery MUS occurs primarily in non-Federal waters, generally 0–3 nautical miles from shore. For these reasons, NMFS proposes to implement the Council's recommended AM, which requires the Council to conduct a post-season accounting of the annual catch for each stock and stock complex of MUS immediately after the end of the fishing year. If an ACL is exceeded, the Council would take action in accordance with 50 CFR 600.310(g), which may include a recommendation that NMFS reduce the ACL for the subsequent fishing year by the amount of the overage, or other measures, as appropriate.

NMFS will consider public comments on the proposed ACLs and AMs and will announce the final specifications as soon as possible. Comments on these proposed specifications must be received by February 15, 2013, not postmarked or otherwise transmitted by that date. Regardless of the final ACL specifications and AMs, all other management measures will continue to apply in the fisheries.

Classification

Pursuant to section 304(b)(1)(A) of the Magnuson-Stevens Act, the NMFS Assistant Administrator for Fisheries has determined that this proposed specification is consistent with the applicable western Pacific FEPs, other provisions of the Magnuson-Stevens Act, and other applicable laws, subject to further consideration after public comment.

Certification of Finding of No Significant Impact on Substantial Number of Small Entities

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that these proposed specifications, if adopted, would not have a significant economic impact on a substantial number of small entities. A description of the action, why it is being considered, and the legal basis for it are contained in the preamble to this proposed specification.

The National Marine Fisheries Service (NMFS) based the proposed specifications on recommendations from the Western Pacific Fishery Management Council (Council) at its 155th meeting held on October 29–November 1, 2012. A total of 101 ACLs are proposed: 22 in American Samoa, 27 in Guam, 22 in the Commonwealth of the Northern Mariana Islands (CNMI), and 30 in Hawaii. NMFS would specify the ACLs for the 2013 fishing year, which begins on January 1 and ends on December 31, except for precious coral fisheries which already began on July 1, 2012 and will end June 30, 2013. NMFS would apply some ACLs to fisheries for which there are no participants. These include certain crustacean fisheries (deepwater shrimp and Kona crab) and all precious coral fisheries outside Hawaii.

Fishermen should not face any adverse economic impacts as a direct result of the proposed ACLs and AMs. The Council and NMFS are not considering in-season closures in any of the fisheries to which these ACLs apply, due to the current inability of fishery management entities to conduct in-season tracking of catch in relation to the ACLs. As a result, fishermen would be able to fish throughout the entire season. In addition, the ACLs, as proposed, would not change the gear types, areas fished, effort, or participation of the fishery during the 2013 fishing season. A post-season review of the catch data would be required to determine whether any fishery exceeded its ACL. If an ACL is exceeded, the Council and NMFS would take action to correct the operational issue that caused the ACL overage. The environmental and socio-economic impacts of future actions, such as changes to future ACLs or AMs, would need to be evaluated separately once the required data are available.

For Pacific Island bottomfish, other alternatives that were considered but not selected called for alternative specifications lower than those that are proposed. However, because in-season tracking of catch data cannot be achieved in these fisheries, in-season AMs (such as a fishery closure) are not possible, and fishermen would be able to fish throughout the entire season under all alternatives considered. Therefore, the direct economic impacts to small entities during the 2013 fishing season would not likely differ among the alternatives.

As described earlier, the proposed action of specifying ACLs and AMs is expected to have little, if any, direct adverse economic impact. For active fisheries, the ACLs are generally in line with or greater than the current annual yields and there should be no disproportionate economic impacts between large and small entities. Furthermore, there is likely to be no disproportionate economic impacts among the universe of vessels based on gear, home port, or vessel length. Because the proposed action would have little to no direct economic impact,

NMFS has determined that this proposed rule will not have a significant economic impact on a substantial number of small entities, pursuant to the Regulatory Flexibility Act, 5 U.S.C. 605(b).

As a result, an initial regulatory flexibility analysis is not required and none has been prepared.

This action is exempt from review under the procedures of E.O. 12866.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: January 24, 2013.

Alan D. Risenhoover,

Director, Office of Sustainable Fisheries, performing the functions and duties of the Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

[FR Doc. 2013–02010 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–22–P

Notices

Federal Register

Vol. 78, No. 21

Thursday, January 31, 2013

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Food Safety and Inspection Service

[Docket No. FSIS–2012–0014]

Notice of Request for a New Information Collection; Import of Undenatured Inedible Product

AGENCY: Food Safety and Inspection Service, USDA.

ACTION: Notice and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 and Office of Management and Budget (OMB) regulations, the Food Safety and Inspection Service (FSIS) is announcing its intention to request a new information collection regarding the importation of undenatured inedible meat and egg products into the United States.

DATES: Comments on this notice must be received on or before April 1, 2013.

ADDRESSES: FSIS invites interested persons to submit comments on this notice. Comments may be submitted by one of the following methods:

- *Federal eRulemaking Portal:* This Web site provides the ability to type short comments directly into the comment field on this Web page or attach a file for lengthier comments. Go to *http://www.regulations.gov.* Follow the on-line instructions at that site for submitting comments.
- *Mail, including CD–ROMs, etc.:* Send to Docket Clerk, U.S. Department of Agriculture, Food Safety and Inspection Service, Patriots Plaza 3, 1400 Independence Avenue SW., Mailstop 3782, Room 8–163A, Washington, DC 20250–3700.
- *Hand- or courier-delivered submittals:* Deliver to Patriots Plaza 3, 355 E. Street SW., Room 8–163A, Washington, DC 20250–3700.

Instructions: All items submitted by mail or electronic mail must include the Agency name and docket number FSIS–2012–0014. Comments received in response to this docket will be made available for public inspection and posted without change, including any personal information, to *http://www.regulations.gov.*

Docket: For access to background documents or comments received, go to the FSIS Docket Room at Patriots Plaza 3, 355 E. Street SW., Room 8–164, Washington, DC 20250–3700 between 8:00 a.m. and 4:30 p.m., Monday through Friday.

FOR FURTHER INFORMATION CONTACT: John O'Connell, Paperwork Reduction Act Coordinator, Food Safety and Inspection Service, USDA, 1400 Independence Avenue SW, Room 6065, South Building, Washington, DC 20250; Phone: (202) 720–0345.

SUPPLEMENTARY INFORMATION:

Title: Import of Undenatured Inedible Product.

Type of Request: New.

Abstract: FSIS has been delegated the authority to exercise the functions of the Secretary of Agriculture (7 CFR 2.18, 2.53) as specified in the Federal Meat Inspection Act (FMIA) (21 U.S.C. 601, *et seq.*) and the Egg Products Inspection Act (EPIA) (21 U.S.C. 1031, *et seq.*). FSIS protects the public by verifying that meat and egg products are safe, wholesome, not adulterated, and correctly labeled.

Foreign governments are to petition FSIS for approval to import undenatured inedible egg products into the United States (9 CFR 590.45 (d)). Undenatured inedible meat and egg products may be imported into the United States if they meet the requirements of FSIS's regulations (9 CFR 325.11 (e) and 590.45 (d)). Inedible poultry must be denatured, regardless of the intended use (9 CFR 381.193). Thus, undenatured inedible poultry product may not be imported into the United States.

Firms will complete FSIS Form 9540–4, ''Permit Holder—Importation of Undenatured Inedible Product'' for the undenatured inedible product that they are importing into the United States. FSIS will use the information on the forms to keep track of the movement of imported undenatured inedible meat and egg products.

FSIS has made the following estimates on the basis of an information collection assessment.

Estimate of Burden: FSIS estimates that it takes respondents an average of 16.6 hours per year to complete the forms.

Respondents: Importers.

Estimated No. of Respondents: 20.

Estimated No. of Annual Responses per Respondent: 100.

Estimated Total Annual Burden on Respondents: 333 hours.

Copies of this information collection assessment can be obtained from John O'Connell, Paperwork Reduction Act Coordinator, Food Safety and Inspection Service, USDA, 1400 Independence, SW., Room 6065, South Building, Washington, DC 20250; (202) 720–0345.

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of FSIS's functions, including whether the information will have practical utility; (b) the accuracy of FSIS's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques, or other forms of information technology. Comments may be sent both to FSIS, at the addresses provided above, and to the Desk Officer for Agriculture, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20253.

Responses to this notice will be summarized and included in the request for OMB approval. All comments will also become a matter of public record.

USDA Nondiscrimination Statement

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's Target Center at 202–720–2600 (voice and TTY).

To file a written complaint of discrimination, write USDA, Office of

the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW., Washington, DC 20250–9410 or call 202–720–5964 (voice and TTY). USDA is an equal opportunity provider and employer.

Additional Public Notification

FSIS will announce this notice online through the FSIS Web page located at *http://www.fsis.usda.gov/regulations_&_policies/Federal Register_Notices/index.asp.*

FSIS will also make copies of this **Federal Register** publication available through the FSIS Constituent Update, which is used to provide information regarding FSIS policies, procedures, regulations, **Federal Register** notices, FSIS public meetings, and other types of information that could affect or would be of interest to constituents and stakeholders. The Update is communicated via Listserv, a free electronic mail subscription service for industry, trade groups, consumer interest groups, health professionals, and other individuals who have asked to be included. The Update is also available on the FSIS Web page. In addition, FSIS offers an electronic mail subscription service which provides automatic and customized access to selected food safety news and information. This service is available at *http://www.fsis.usda.gov/News_&_Events/Email_Subscription/.*

Options range from recalls to export information to regulations, directives and notices. Customers can add or delete subscriptions themselves, and have the option to password protect their accounts.

Done at Washington, DC, on January 24, 2013.

Alfred V. Almanza,

Administrator.

[FR Doc. 2013–02110 Filed 1–30–13; 8:45 am]

BILLING CODE 3410–DM–P

DEPARTMENT OF AGRICULTURE

Food Safety and Inspection Service

[Docket No. FSIS–2013–0001]

Codex Alimentarius Commission: Meeting of the Codex Committee on Food Labeling

AGENCY: Office of the Under Secretary for Food Safety, USDA.

ACTION: Notice of public meeting and request for comments.

SUMMARY: The Office of the Under Secretary for Food Safety, U.S. Department of Agriculture (USDA), and the Food and Drug Administration (FDA), are sponsoring a public meeting on April 17, 2013. The objective of the public meeting is to provide information and receive public comments on agenda items and draft United States (U.S.) positions that will be discussed at the 41st Session of the Codex Committee on Food Labeling (CCFL) of the Codex Alimentarius Commission (Codex), which will be held in Charlottetown, Prince Edward Island, Canada from May 14–17, 2013. The Under Secretary for Food Safety and FDA recognize the importance of providing interested parties the opportunity to obtain background information on the 41st Session of the CCFL, and to address items on the agenda.

DATES: The public meeting is scheduled for Wednesday, April 17, 2013, from 1:00 p.m.-3:00 p.m.

ADDRESSES: The public meeting will be held at the Jamie L. Whitten Building, USDA, 1400 Independence Avenue SW., Room 107–A, Washington, DC 20250.

Documents related to the 41st Session of the CCFL will be accessible via the World Wide Web at the following address: *http://www.codexalimentarius.org/meetings-reports/en/.*

The U.S. Delegate to the 41st Session of the CCFL invites U.S. interested parties to submit their comments electronically to the following email address: *ccfl@fda.hhs.gov.*

Call-In Number:

If you wish to participate in the public meeting for the 41st Session of the CCFL, by conference call, please use the call in number and participant code listed below:

Call-in Number: 1–888–858–2144.

Participant code: 6208658.

For Further Information About the 41st Session of the CCFL: Contact: Office of Nutrition, Labeling, and Dietary Supplements, Center for Food Safety and Applied Nutrition, FDA, 5100 Paint Branch Parkway (HFS–800), College Park, MD 20740, Email: *ccfl@fda.hhs.gov.*

For Further Information About the Public Meeting Contact: Doreen Chen-Moulec, U.S. Codex Office, 1400 Independence Avenue SW., Room 4861, Washington, DC 20250, Telephone: (202) 205–7760, Fax: (202) 720–3157, *Email: uscodex@fsis.usda.gov.*

SUPPLEMENTARY INFORMATION:

Background

Codex was established in 1963 by two United Nations organizations, the Food and Agriculture Organization and the World Health Organization. Through adoption of food standards, codes of practice, and other guidelines developed by its committees, and by promoting their adoption and implementation by governments, Codex seeks to protect the health of consumers and ensure fair practices in the food trade.

The CCFL is responsible for:

(a) Drafting provisions on labeling applicable to all foods;

(b) Considering, amending if necessary, and endorsing draft specific provisions on labeling prepared by the Codex Committees drafting standards, codes of practice and guidelines;

(c) Studying specific labeling problems assigned to it by Codex; and

(d) Studying problems associated with the advertisement of food with particular reference to claims and misleading descriptions.

The Committee is hosted by Canada.

Issues To Be Discussed at the Public Meeting

The following items on the agenda for the 41st Session of the CCFL will be discussed during the public meeting:

- Matters referred to the CCFL.
- Consideration of labeling provisions in draft Codex standards.
- Implementation of the World Health Organization Global Strategy on Diet, Physical Activity and Health.

(a) Proposed draft revision of the *Guidelines on Nutrition and Health Claims concerning Non-Addition of Sodium Salts*

- Guidelines for the Production, Processing, Labeling and Marketing of Organically Produced Foods.

(a) Use of ethylene as sprouting inhibitor for onions and potatoes.

(b) Organic aquaculture.

- Discussion Paper on Issues Related to Date Marking.
- Discussion Paper on Labeling of Food Derived from Crops Biofortified by Natural Selection
- Other Business and Future Work.

Each issue listed will be fully described in documents distributed, or to be distributed, by the Secretariat prior to the meeting. Members of the public may access these documents (see **ADDRESSES**).

Public Meeting

At the April 17, 2013, public meeting, draft U.S. positions on the agenda items will be described and discussed, and attendees will have the opportunity to pose questions and offer comments. Written comments may be offered at the meeting or sent to the U.S. Delegate for the 41st Session of the CCFL (see **ADDRESSES**). Written comments should state that they relate to activities of the 41st Session of the CCFL.

Additional Public Notification

FSIS will announce this notice online through the FSIS Web page located at *http://www.fsis.usda.gov/regulations_&_policies/Federal_Register_Notices/index.asp*.

FSIS will also make copies of this **Federal Register** publication available through the FSIS Constituent Update, which is used to provide information regarding FSIS policies, procedures, regulations, **Federal Register** notices, FSIS public meetings, and other types of information that could affect or would be of interest to constituents and stakeholders. The Update is communicated via Listserv, a free electronic mail subscription service for industry, trade groups, consumer interest groups, health professionals, and other individuals who have asked to be included. The Update is also available on the FSIS Web page. In addition, FSIS offers an electronic mail subscription service which provides automatic and customized access to selected food safety news and information. This service is available at *http://www.fsis.usda.gov/News_&_Events/Email_Subscription/*. Options range from recalls to export information to regulations, directives, and notices. Customers can add or delete subscriptions themselves, and have the option to password protect their accounts.

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To file a written complaint of discrimination, write USDA, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW., Washington, DC 20250–9410 or call 202–720–5964 (voice and TTY). USDA is an equal opportunity provider and employer.

Done at Washington, DC on January 24, 2013.

Mary Frances Lowe,

U.S. Manager for Codex Alimentarius.

[FR Doc. 2013–02108 Filed 1–30–13; 8:45 am]

BILLING CODE 3410–DM–P

DEPARTMENT OF AGRICULTURE

Forest Service

Information Collection: Arctic National Wildlife Refuge Recreation Visitor Study—2013

AGENCY: Forest Service, USDA.

ACTION: Notice; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, the Forest Service is seeking comments from all interested individuals and organizations on the new information collection, Arctic National Wildlife Refuge Recreation Visitor Study—2013.

DATES: Comments must be received in writing on or before April 1, 2013 to be assured of consideration. Comments received after that date will be considered to the extent practicable.

ADDRESSES: Comments concerning this notice should be addressed to Alan E. Watson, Aldo Leopold Wilderness Research Institute, USDA Forest Service Rocky Mountain Research Station, 790 E. Beckwith Ave., Missoula, MT 59801.

Comments also may be submitted via facsimile to (406) 542–4196 or by email to: *awatson@fs.fed.us.*

The public may inspect comments received at the Aldo Leopold Wilderness Research Institute, USDA Forest Service Rocky Mountain Station, 790 E. Beckwith Ave., Missoula, MT 59801 during normal business hours. Visitors are encouraged to call ahead to (406) 542–4197 to facilitate entry to the building.

FOR FURTHER INFORMATION CONTACT: Alan E. Watson, Aldo Leopold Wilderness Research Institute, (406) 542–4197.

Individuals who use TDD may call the Federal Relay Service (FRS) at 1–800–877–8339, 24 hours a day, every day of the year, including holidays.

SUPPLEMENTARY INFORMATION:

Title: Arctic National Wildlife Refuge Recreation Visitor Study—2013.

OMB Number: 0596–NEW.

Expiration Date of Approval: Not applicable.

Type of Request: New.

Abstract: The Aldo Leopold Wilderness Research Institute in Missoula, Montana, works under an interagency agreement with the U.S. Fish and Wildlife Service, Department of the Interior, to provide information in support of public wild lands management planning. The management of specific refuges is directed by laws, policies, and Comprehensive Conservation Plans. The Wilderness Act of 1964 directs the management of the National Wilderness Preservation System to protect natural wilderness conditions and provide outstanding opportunities for the public to find solitude or primitive and unconfined types of recreational experiences. The Arctic National Wildlife Refuge contains 8,000,000 acres of federally protected wilderness, Molly Beattie Wilderness, and over 11,000,000 acres of land and water managed for multiple values (e.g. subsistence, wildlife, water quality, scenic values, etc.). The wildlife refuge is also mandated to provide recreation experiences to visitors under the following laws: (1) The National Wildlife Refuge System Administration Act, as amended by the National Wildlife Refuge System Improvement Act, (2) The Refuge Recreation Act, and (3) The Alaska National Interest Lands Conservation Act.

Scientists at the Aldo Leopold Wilderness Research Institute periodically monitor and report visitor use, user characteristics, and visitor feedback on federal land management actions, to managers and the public, to help meet federal mandates related to visitor use management planning. Agency personnel use the collected information to ensure visitor recreational activity does not harm the natural resources of the refuge and to guarantee the protection of wilderness-type recreation experiences. The Agency intent is to compare 2013's recorded visitor responses to the previous survey responses, dated in 1977 before Refuge status and Wilderness designation. Additionally, the Agency will expand the scope of the survey to include visitor feedback to understand major dimensions of visitor experiences there and factors that influence those experiences. Potential factors of influence could include encounters with other visitors, subsistence users, researchers, and agency personnel, and information sources used to plan the trip. The data from this information collection will be stored at the Aldo Leopold Wilderness Research Institute in Missoula, Montana. Scientists working at the Research Institute will conduct the data analysis.

The U.S. Fish and Wildlife Service will use information from this collection to:

1. Understand changes in visitor demographics, frequency of visits, and residence,

2. Understand changes in visit characteristics, such as whether they are hunting, river floating, method of access, size of group, difficulty in finding campsites, evaluations of conditions encountered, and feedback on information available for trip planning,

3. Gain an understanding of how the agency's management of the Arctic National Wildlife Refuge and other potential factors facilitate and constrain a visitor's recreation experience,

4. Gain an understanding of how to educate recreation visitors so they do not leave impacts from their visits, such as damaged vegetation, litter, polluted lakes and streams, and wildlife disturbance while engaging in high quality, safe, and responsible recreation visits, and

5. Provide insight into what visitors value most about this place to help inform development of a Wilderness Stewardship Plan and a Visitor Use Management Plan for the Arctic National Wildlife Refuge.

Respondents will be recreation visitors to the Arctic National Wildlife Refuge. Visitors will be contacted as they enter the Refuge, or upon exit and will be provided with a postage-paid postcard that offers them alternate methods to respond to the survey: (1) Mail the postage-paid postcard to the Leopold Institute with a name and address to receive a mail back survey, (2) mail the postage-paid postcard to the Leopold Institute with an electronic email address to receive an electronic form of the survey, or (3) keep the postcard that contains a web address for on-line completion of the survey. All responses will be voluntary and confidential. Data collected in this information collection are not available from other sources and have not been collected since 1977.

This study will only ask recreation visitors, who are non-local and non-subsistence users, questions about their recreation visit, their personal demographics relevant to education and interpretation goals, and factors that have influenced or are likely to influence their recreation visits. Survey respondents will be told that this information is voluntary and confidential so their names will not be connected to their responses in any way. The Survey will not include questions related to oil exploration or development within the boundaries of the Refuge.

Estimate of Annual Burden: 20 minutes for each respondent (2 minutes on-site, 18 minutes mail-back or email back survey).

Type of Respondents: Recreation visitors to the Arctic National Wildlife Refuge.

Estimated Annual Number of Respondents: 850 targeted contacts.

Estimated Sampling Success: 65% of those agreeing to participate (80% of 850 = 680), yielding approximately 450 responses.

Estimated Annual Number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 196.25 hours (contact with 850 visitors for on-site completion of survey request form; 80% agree to receive survey, 65% response—450 responses).

Comment is invited on: (1) Whether this collection of information is necessary for the stated purposes and the proper performance of the functions of the agency, including whether the information will have practical or scientific utility; (2) the accuracy of the Agency's estimate of the burden of the collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

All comments received in response to this notice, including names and addresses when provided, will be a matter of public record. Comments will be summarized and included in the request for Office of Management and Budget approval.

Dated: January 24, 2013.

Cynthia D. West,

Associate Deputy Chief, Research & Development.

[FR Doc. 2013–02090 Filed 1–30–13; 8:45 am]

BILLING CODE 3410–11–P

DEPARTMENT OF AGRICULTURE

Forest Service

Forest Resource Coordinating Committee

AGENCY: Forest Service, USDA.

ACTION: Notice of meeting.

SUMMARY: The Forest Resource Committee Meeting will meet in Arlington, Va. The committee is authorized under the Food, Conservation, and Energy Act of 2008 (Pub. L. 110–246). The purpose of the committee is to provide direction and coordination of actions within the U.S. Department of Agriculture, and coordination with State agencies and the private sector, to effectively address the national priorities for non-industrial private forest land. The purpose of the meeting is discuss operational procedures for the committee and develop a workplan of projects for the committee to complete within the year.

DATES: The meeting will be held on April 11–12, 2013.

ADDRESSES: The meeting will be held at 1621 North Kent Street, Arlington, Virginia, in room 703/704. Written comments regarding agenda items must be received by January 24, 2013. Written comments may be submitted by mail to Attn: Maya Solomon, 1400 Independence Ave. SW., mailstop 1123, Washington, DC 20250 or by email to *mayasolomon@fs.fed.us.*

All comments, including names and addresses when provided, are placed in the record and are available for public inspection and copying. The public may inspect comments received on the Forest Resource Coordinating Committee Web site at *http://www.fs.fed.us/spf/coop/frcc/*. Visitors are encouraged to call ahead to 202–205–1043 to facilitate entry into the meeting room.

FOR FURTHER INFORMATION CONTACT: Maya Solomon, Forest Resource Coordinating Committee Program Coordinator, Cooperative Forestry staff, 202–205–1376 or Ted Beauvais, Designated Federal Officer, 202–205–1190.

Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8:00 a.m. and 8:00 p.m., Eastern Standard Time, Monday through Friday.

SUPPLEMENTARY INFORMATION: The meeting will be held on April 11–12, 2013, from 8:30 a.m. to 5:00 p.m. and is open to the public. The committee will discuss its 2013 plan of work and operational procedures for the committee. The committee will have several presentations relating to private forest landowners and government programs providing assistance to private forests to guide the development of its 2013 workplan.

Please see the Forest Resource Coordinating Committee Web site for any available materials, including a draft agenda for this meeting *http://www,fs.fed.us/spf/coop/frcc/*. Comments/issues of particular interest to this meeting will also be made available to the public on this Web site. A summary of the meeting will be posted at *http://www.fs.fed.us/spf/coop/within* 21 days after the meeting.

Dated: January 24, 2013.

James E. Hubbard,

Deputy Chief, State & Private Forestry.

[FR Doc. 2013–02091 Filed 1–30–13; 8:45 am]

BILLING CODE 3410–11–P

CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD

Sunshine Act Meeting

TIME AND DATE: February 7, 2013; 6:30 p.m. EST.

PLACE: Seelbach Hilton, Medallion E&F Salon, 500 Fourth Street, Louisville, KY.

STATUS: Open to the public.

MATTERS TO BE CONSIDERED: The Chemical Safety and Hazard Investigation Board (CSB) announces that it will convene a public meeting on Thursday, February 7, 2013, starting at 6:30 p.m. EST in the Medallion E&F Salon at the Seelbach Hilton located at 500 Fourth Street in Louisville, KY.

The agenda for the meeting includes the presentation of the findings from the CSB investigation into the March 21, 2011, furnace explosion that occurred at the Carbide Industries facility located in Louisville, KY. Two workers were killed and two were injured when an electric arc furnace (EAF) over pressured and emitted powdered debris, hot gases, and molten calcium carbide. The hot gases and debris blown from the furnace broke through the double-pane reinforced glass window of the control room, severely burning the two workers inside; they died within 24 hours from burn injuries.

At the meeting, CSB staff will present to the Board the results of the investigation into this incident. Key issues identified in the investigation include facility siting and the effectiveness of safety standards that cover electric arc furnaces. Following the staff presentation on proposed findings and safety recommendations, the Board will hear brief comments from the public.

Following the conclusion of the public comment period, the Board will consider whether to approve the final case study and recommendations. All staff presentations are preliminary and are intended solely to allow the Board to consider in a public forum the issues and factors involved in this case. No factual analyses, conclusions, or findings presented by staff should be considered final. Only after the Board has considered the staff presentations, listened to public comments, and adopted a final investigation report and recommendations will there be an approved final record of the CSB investigation of this incident.

Following consideration of the report on the Carbide Industries explosion, the Chairperson may call up the following items related to CSB safety recommendations that have been calendared for consideration at a public meeting: Notation Items 843, 2013–01, 2013–02, and 2013–04. Details on each item are available at *http://www.csb.gov/records/default.aspx*.

The meeting will be free and open to the public. If you require a translator or interpreter, please notify the individual listed below as the ''Contact Person for Further Information,'' at least five business days prior to the meeting.

The CSB is an independent Federal agency charged with investigating industrial accidents that result in the release of extremely hazardous substances. The agency's Board Members are appointed by the President and confirmed by the Senate. CSB investigations look into all aspects of accidents, including physical causes such as equipment failure as well as inadequacies in regulations, industry standards, and safety management systems.

CONTACT PERSON FOR FURTHER INFORMATION: Hillary J. Cohen, Communications Manager, *hillary.cohen@csb.gov* or (202) 446–8094. General information about the CSB can be found on the agency Web site at: *www.csb.gov*.

Dated: January 28, 2013.

Rafael Moure-Eraso,

Chairperson.

[FR Doc. 2013–02121 Filed 1–28–13; 4:15 pm]

BILLING CODE 6350–01–P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Georgia Advisory Committee

Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the Georgia Advisory Committee (Committee) will hold a public consultation on Tuesday, February 19, 2013, for the purpose to learn about effective implementation of immigration policy from federal and state officials, law enforcement officials, business leaders, and community leaders. The afternoon session will convene at 2:30 p.m. and adjourn at approximately 4:30 p.m. The evening session will convene at 6:00 p.m. and adjourn at approximately 8:30 p.m. The meeting will be held at the Gwinnett Center, 6400 Sugarloaf Parkway, Duluth, GA 30097.

Members of the public are entitled to submit written comments; the comments must be received in the regional office by March 19, 2013. Written comments may be mailed to the Southern Regional Office, U.S. Commission on Civil Rights, 61 Forsyth St. SW., Suite 16T126, Atlanta, GA 30303. They may also be faxed to the Commission at (404) 562–7005, or emailed to the Commission at *pminarik@usccr.gov.* Persons who desire additional information may contact the Southern Regional Office at (404) 562–7000.

Hearing-impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Southern Regional Office at least ten (10) working days before the scheduled date of the meeting.

Records generated from this meeting may be inspected and reproduced at the Southern Regional Office, as they become available, both before and after the meeting. Persons interested in the work of this Committee are directed to the Commission's Web site, *http://www.usccr.gov,* or may contact the Southern Regional Office at the above email or street address.

The meeting will be conducted pursuant to the rules and regulations of the Commission and FACA.

Dated in Washington, DC, January 25, 2013.

David Mussatt,

Acting Chief, Regional Programs Coordination Unit.

[FR Doc. 2013–02056 Filed 1–30–13; 8:45 am]

BILLING CODE 6335–01–P

DEPARTMENT OF COMMERCE

International Trade Administration

Critical Infrastructure Protection and Cyber Security Trade Mission to Saudi Arabia and Kuwait, September 28–October 1, 2013

AGENCY: International Trade Administration, Department of Commerce.

ACTION: Notice.

Mission Description

The United States Department of Commerce, International Trade Administration, U.S. & Foreign Commercial Service, is coordinating and sponsoring an executive-led Critical Infrastructure Protection and Cyber Security mission to Riyadh, Saudi Arabia and Kuwait City, Kuwait, from September 28–October 1, 2013. The mission will focus on the cyber security, critical infrastructure protection, and emergency management, ports of entry, aviation, and border security sectors. This mission is designed for

representatives from U.S. safety and security businesses and trade associations that have past experience exporting to the Middle East region. This mission will seek to connect U.S. companies in the safety and security industries, including Information Communications Technology (ICT) companies active in cyber security, with appropriate government (state and local) and private entities in Saudi Arabia and Kuwait. The mission will include one-on-one appointments with potential partners, embassy briefings, technical site visits and networking events in Riyadh and and Kuwait City.

Commercial Setting

Saudi Arabia

The Kingdom of Saudi Arabia has prioritized cyber defense and infrastructure protection, and is investing heavily in these sectors. Saudi Arabia is interested in learning about the U.S. experience in defending vital economic infrastructure from cyber attacks in an effort to strengthen its capabilities concerning computer systems and other potential cyber attack targets. In 2008, the U.S. and Saudi Arabia signed a Technical Cooperation Agreement to facilitate the transfer of technical knowledge, advice, skills and resources from the United States to the Kingdom of Saudi Arabia in the areas of critical infrastructure protection and public security, including border protection, civil defense capabilities, and coast guard and maritime capabilities. In 2012, Saudi infrastructure spending included $9.4 billion for transport projects such as the expansion of a number of the country's airports. Specifically, opportunities exist for companies providing surveillance equipment, electronic gates, thermal imaging, advanced communication systems, electronic detection equipment, cyber intrusion detection and prevention, perimeter control, biometrics, etc.

Kuwait

The Government of Kuwait has a stated plan to invest considerable sums in safety and security equipment through 2020. Kuwait defense and security forces will be looking to purchase surveillance equipment, perimeter security and control systems, security check point equipment (fences, crash barriers, cameras, access points), and contraband detection systems, including scanning systems, and consulting services in security planning. Additionally, the Government of Kuwait is seeking to increase its capabilities in cyber security.

In particular, several projects currently under consideration by the Government of Kuwait, particularly under the Ministry of Interior, include (additional) camera surveillance systems to be installed in and near most transportation infrastructure points, geospatial intelligence connectivity, maritime netting, and sensors to minimize security threats to vessels, facilities security of oil refineries and power plants (stations), production facilities and loading platforms, including ports, and the hardware and software infrastructure needed to support a fully integrated C4ISR (C41 Surveillance and Reconnaissance) Systems.

Kuwait plans to spend a total of US$ 28.2 billion on projects in the transportation sector, including aviation, airport, rail, roads, building and terminals. The expansion of Kuwait International Airport is a significant infrastructure development. The planned $6 billion project includes a new terminal building and expanding the two existing terminals. Moreover, in 2013, Kuwait is expected to award a tender to build its third runway. Kuwait is aiming to double the airport capacity to 20 million passengers by 2025.

Other major projects are the construction of the country's fourth refinery and the expansion of the existing refineries valued at approximately $30 billion.

Mission Goals

The goals of the Critical Infrastructure Protection and Cyber Security mission to Saudi Arabia and Kuwait are:

1. To gain market exposure and introduce participants to potential partners and key decision makers, taking advantage of the United States' strong ties and positive reputation in Saudi Arabia and Kuwait.

2. To develop market knowledge and relationships that can enhance potential partnerships with local, safety and security firms, and government agencies (state and local).

Mission Scenario

Participation in the mission will include the following:

- Pre-travel briefings/webinars
- Embassy/consulate and industry briefings
- Networking reception at the Ambassador's Residences in Riyadh and Kuwait City; and
- Pre-scheduled one-on-one meetings with appropriate individuals at the local trade associations, companies, and government entities. Transport to meetings in Riyadh and Kuwait City.

The precise schedule will depend on the specific goals and objectives of the mission participants.

PROPOSED TIMETABLE—SEPTEMBER 28–OCTOBER 1, 2013

Saturday, September 28, 2013	Arrive Riyadh.
Evening	Individual transfer to the hotel.
Sunday, September 29, 2013	
9:00 a.m.	Embassy briefing.
	Lunch.
12:00–1:00 p.m.	Government Meetings.
1:30–17:30 p.m.	Networking.
17:30 p.m.	Reception at the Ambassador's Residence.
20:00–21:00 p.m.	Return to hotel.
Monday, September 30, 2013	
8:30 a.m.–12:00 p.m.	Individual meetings with Saudi associations and prospective agents and other partners.
Afternoon	One on one meetings.
16:05 p.m.	Depart for Kuwait City via Saudi Airways.
17:20 p.m.	Arrive Kuwait City.
19:30 p.m.–21:00 p.m.	Welcome Reception at the Ambassador's Residence.
Tuesday, Oct. 1, 2013	Kuwait.
8:00–9:00 a.m.	Embassy Country Team briefing.
9:30 a.m.–12:00 p.m.	Government of Kuwait meetings.
Afternoon	Lunch.
	Site visits.

PROPOSED TIMETABLE—SEPTEMBER 28–OCTOBER 1, 2013—Continued

	Roundtable discussions with local business leaders. One on One meetings with local business people. Trade Mission concludes, on own.

Participation Requirements

All parties interested in participating in the Critical Infrastructure Protection and Cyber Security mission to Saudi Arabia and Kuwait must complete and submit an application for consideration by the U.S. Department of Commerce. All applicants will be evaluated on their ability to meet certain conditions and best satisfy the selection criteria as outlined below. The mission will include a minimum of 15 and maximum of 20 qualified U.S. firms and trade associations.

Fees and Expenses

After an applicant has been selected to participate on the mission, a payment to the U.S. Department of Commerce in the form of a participation fee is required. The participation fee for one representative is $3,911 for a small or medium-sized enterprise and $4,288 for a large firm.[1] The fee for each additional representative is $1,000. Expenses for lodging, some meals, incidentals, and all travel (except for transportation to and from airports in-country, previously noted) will be the responsibility of each mission participant.

Conditions for Participation

Applicants must submit a completed and signed mission application and supplemental application materials, including adequate information on the company's (or in the case of a trade association, represented companies') products and/or services, primary market objectives, and goals for participation. If the Department of Commerce receives an incomplete application, the Department may either: Reject the application, request additional information/clarification, or take the lack of information into account when evaluating the applications.

Each applicant must also certify that the products and services it seeks to export through the mission are either produced in the United States, or, if not, are marketed under the name of a U.S. firm and have at least fifty-one percent U.S. content. In the case of a trade association, the applicant must certify that for each company to be represented by the association, the products and/or services the represented company seeks to export are either produced in the United States or, if not, marketed under the name of a U.S. firm and have at least fifty-one percent U.S. content.

Selection Criteria for Participation

Selection will be based on the following criteria:

- Suitability of a company's (or in the case of a trade association, represented companies') products or services to the mission's goals
- Applicant's (or in the case of a trade association, represented companies') potential for business in Saudi Arabia and Kuwait, including likelihood of exports resulting from the trade mission
- Applicant's (or in the case of a trade association, represented companies') demonstrated export experience in the Middle East region (including Saudi Arabia and Kuwait)
- Consistency of the applicant's (or in the case of a trade association, represented companies') goals and objectives with the stated scope of the trade mission (i.e., the sectors indicated in the mission description)

Referrals from political organizations and any documents containing references to partisan political activities (including political contributions) will be removed from an applicant's submission and not considered during the selection process.

Selection Timeline

Mission recruitment will be conducted in an open and public manner, including publication in the **Federal Register**, posting on the Commerce Department trade mission calendar (*http://export.gov/trademissions*) and other Internet Web sites, press releases to general and trade media, direct mail, notices by industry trade associations and other multiplier groups, and publicity at industry meetings, symposia, conferences, and trade shows. The deadline to apply is June 30, 2013; however, the U.S. Department of Commerce will begin reviewing applications and making selection decisions on a rolling basis beginning on February 11, 2013 until the maximum of 20 participants is selected. Applications received after June 30, 2013 will be considered only if space and scheduling constraints permit.

Contacts

Jessica Arnold, International Trade Specialist, U.S. Department of Commerce I Commercial Service, 1400 Pennsylvania Ave. NW., Washington, DC 20004, Tel: 202–482–2026. *saudimission2013@trade.gov*√*http://trade.gov*.

Michael Marangell, International Trade Specialist, U.S. Department of Commerce I Commercial Service, 200 West Adams, Suite 2450, Chicago, IL 60606, Tel: 312–353–5097, *saudimission2013@trade.gov*√*http://export.gov/illinois*.

Amer Kayani, Senior Commercial Officer, Riyadh, Saudi Arabia, U.S. Department of Commerce I Commercial Service, *Amer.kayani@trade.gov*.

Dao M. Le, Senior Commercial Officer, Kuwait City, Kuwait, U.S. Department of Commerce I Commercial Service, *Dao.Le@trade.gov*.

Elnora Moye,

Trade Program Assistant.

[FR Doc. 2013–02052 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–FP–P

[1] An SME is defined as a firm with 500 or fewer employees or that otherwise qualifies as a small business under SBA regulations (see *http://www.sba.gov/services/contractingopportunities/sizestandardstopics/index.html*). Parent companies, affiliates, and subsidiaries will be considered when determining business size. The dual pricing reflects the Commercial Service's user fee schedule that became effective May 1, 2008 (See *http://www.export.gov/newsletter/march2008/initiatives.html* for additional information).

DEPARTMENT OF COMMERCE

International Trade Administration

U.S. Healthcare Trade Mission to Russia; Moscow and St. Petersburg, June 3–7, 2013; Correction

AGENCY: International Trade Administration, Department of Commerce.

ACTION: Notice; Amendment.

SUMMARY: The United States Department of Commerce, International Trade Administration, U.S. and Foreign Commercial Service published a document in the **Federal Register** of December 4, 2012 regarding the *U.S. Healthcare Trade Mission to Russia June 3–7, 2013. The subject heading of the document incorrectly indicated the fees for the mission.* All other information in the December 31, 2012 Notice, is correct.

FOR FURTHER INFORMATION CONTACT: Elnora Moye; *elnora.moye@trade.gov,* Tel: 202–482–4204.

Correction

In the **Federal Register** of December 31, 2012, in 77 FR 77032, on pages 77032–77035 (4 pages), in the section ''*Fees and Expenses*'' correct the subject heading of the notice to read: After a company has been selected to participate in the mission, a payment to the Department of Commerce in the form of a participation fee is required. The participation fee will be $4965 for large firms and $4722 for a small or medium-sized enterprise (SME) trade association, which will cover one representative.* [1]

Dated: December 31, 2012.

Elnora Moye,

Trade Program Assistant.

[FR Doc. 2013–02049 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

U.S. Infrastructure Trade Mission to Colombia and Panama—Amendment

AGENCY: International Trade Administration, Department of Commerce.

ACTION: Notice.

SUMMARY: The United States Department of Commerce, International Trade Administration, U.S. and Foreign Commercial Service (CS) is publishing this supplement to the Notice of the *U.S. Infrastructure Trade Mission to Colombia and Panama published at 77 FR 71778, December 4, 2012,* to amend the Notice to revise the dates of the application deadline from February 15, 2013 to the new deadline of March 22, 2013.

SUPPLEMENTARY INFORMATION:

Amendments To Revise the Dates

Background

Recruitment for this Mission began in December, 2012. Due to the December holiday season, it has been determined that an additional time is needed to allow for additional recruitment and marketing in support of the mission. Applications will be now be accepted through March 22, 2013 (and after that date if space remains and scheduling constraints permit), interested U.S. infrastructure firms and trade organizations which have not already submitted an application are encouraged to do so as soon as possible.

Amendments

1. For the reasons stated above, the Timeframe for Recruitment and Applications section of the Notice of the *U.S. Infrastructure Trade Mission to Colombia and Panama published at 77 FR 71778, December 4, 2012,* is amended to read as follows:

Timeframe for Recruitment and Applications

Mission recruitment will be conducted in an open and public manner, including publication in the **Federal Register** (*http://www.gpoaccess.gov/fr*), posting on ITA's trade mission calendar—*http://export.gov/trademissions*—and other Internet Web sites, press releases to general and trade media, direct mail, broadcast fax, notices by industry trade associations and other multiplier groups, and publicity at industry meetings, symposia, conferences, and trade shows. Recruitment will conclude no later than Friday, March 22, 2013. The U.S. Department of Commerce will review applications and make selection decisions on a rolling basis until the maximum of fifteen participants is reached. We will inform all applicants of selection decisions as soon as possible after the applications are reviewed. Applications received after the March 22nd deadline will be considered only if space and scheduling constraints permit

FOR FURTHER INFORMATION CONTACT:

Contacts: Arica N Young, Commercial Service Trade Missions Program, Tel: 202–482–6219, Fax: 202–482–9000, Email: *arica.young@trade.gov.*

Elnora Moye,

Trade Program Assistant.

[FR Doc. 2013–02054 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–FP–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XC473

Western Pacific Fishery Management Council; Public Meetings

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a public meeting.

SUMMARY: The Western Pacific Fishery Management Council (Council) will hold the 112th meeting of its Scientific and Statistical Committee (SSC).

DATES: The SSC will meet on February 26–28, 2013, between 8:30 a.m. and 5 p.m. For specific times and agendas, see **SUPPLEMENTARY INFORMATION**.

ADDRESSES: The 112th SSC meeting will be held at the Council office, 1164 Bishop Street, Honolulu, HI 96813; telephone: (808) 522–8220.

FOR FURTHER INFORMATION CONTACT: Kitty M. Simonds, Executive Director; telephone: (808) 522–8220.

SUPPLEMENTARY INFORMATION: Public comment periods will be provided throughout the agenda. The order in which agenda items are addressed may change. The meeting will run as late as necessary to complete scheduled business.

Schedule and Agenda

8:30 a.m.–5 p.m. Tuesday, February 26, 2013

1. Introductions.
2. Approval of Draft Agenda and Assignment of Rapporteurs.
3. Status of the 111th SSC Meeting Recommendations.
4. Report from the Pacific Islands Fisheries Science Center Director.
5. Insular Fisheries.
A. Report on State Evaluation of Bottomfish Restricted Fishing Areas through BotCam Research.
B. Public Comment.
C. SSC Discussion and Recommendations.
6. Program Planning.
A. Progress of NMFS Science Plan.
B. Methods for Acceptable Biological Catch Specifications.
C. Public Comment.
D. SSC Discussion and Recommendations.

8:30 a.m.–5 p.m. Wednesday, February 27, 2013

7. Pelagic Fisheries.
A. Action Item.
1. Management Options for American Samoa South Pacific Albacore Fishery.
B. Levels of Observer Coverage in the Shallow-Set Swordfish Fishery: Report of Working Group.
C. American Samoa and Hawaii Longline Quarterly Reports.
D. International Fisheries Meetings.
1. Ninth Regular Session of the Western and Central Pacific Fisheries Commission (WCPFC 9).
E. Public Comment.
F. SSC Discussion and Recommendations.
8. Protected Species.
A. False Killer Whale Assessments: Report of SSC Subcommittee.

[1] An SME is defined as a firm with 500 or fewer employees or that otherwise qualifies as a small business under SBA regulations (see *http://www.sba.gov/services/contractingopportunities/sizestandardstopics/index.html*).

B. Update on Endangered Species Act (ESA) and Marine Mammal. Protection Act (MMPA) Actions.

1. Final False Killer Whale Take Reduction Plan.

2. Final Rule to List the Main Hawaiian Islands Insular False Killer Whales as Endangered under the ESA.

3. Proposed Rule to List 66 Species of Coral as Endangered or Threatened under the ESA.

C. Update on the Monk Seal Recovery Program.

D. Public Comment.

E. SSC Discussion and Recommendations.

8:30 a.m.–5 p.m. Thursday, February 28, 2013

9. Other Business.

A. 113th SSC Meeting.

10. Summary of SSC Recommendations to the Council.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kitty M. Simonds, (808) 522–8220 (voice) or (808) 522–8226 (fax), at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: January 28, 2013.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2013–02078 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XC472

North Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a public meeting.

SUMMARY: The North Pacific Fishery Management Council's Scallop Plan Team will meet in February in Kodiak. AK.

DATES: The meeting will be held on February 19–20, 2013, from 9 a.m. to 5 p.m.

ADDRESSES: The meeting will be held at Fisherman's Hall, 403 Marina Way, Kodiak, AK.

Council address: North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501–2252.

FOR FURTHER INFORMATION CONTACT: Diana Stram, Council staff; telephone: (907) 271–2809.

SUPPLEMENTARY INFORMATION:

Agenda

Review status of scallop stocks, recommend annual ABC level for statewide stock, compile annual SAFE report, receive report on potential impacts of ocean acidification on scallops, review stock structure for weathervane scallops and recommend annual research priorities.

The Agenda is subject to change, and the latest version will be posted at *http://www.alaskafisheries.noaa.gov/npfmc/*

Although non-emergency issues not contained in this agenda may come before this group for discussion, those issues may not be the subject of formal action during these meetings. Action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Gail Bendixen at (907) 271–2809 at least 7 working days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: January 25, 2013.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2013–02016 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Telecommunications and Information Administration

[Docket No. 130124072–3072–01]

RIN 0660–XC005

Country Code Top-Level Domain (ccTLD) for the United States; Policies and Requirements; Comments Request

AGENCY: National Telecommunications and Information Administration, U.S. Department of Commerce.

ACTION: Notice of Inquiry.

SUMMARY: The United States Department of Commerce's (Department) National Telecommunications and Information Administration (NTIA) administers the contract for the country code top-level domain (ccTLD) for the United States, ''.us'' (usTLD). The current contract expires on August 31, 2013. Given the expiration date of this contract, NTIA is seeking input from interested parties on the policies and requirements that should govern the usTLD. NTIA will utilize the comments received in response to this Notice in the procurement process leading to the award of a new usTLD contract.

DATES: Comments due on or before March 4, 2013

ADDRESSES: Written comments may be submitted by mail to Fiona M. Alexander, Associate Administrator, Office of International Affairs, National Telecommunications and Information Administration, 1401 Constitution Avenue NW., Room 4701, Washington, DC 20230. Comments may be submitted electronically to *ustldnoi@ntia.doc.gov*. All email messages and comments received are a part of the public record and will generally be posted without change to the NTIA Web site at *http://www.ntia.doc.gov/federal-register-notice/2013/comments-ustld-policies-and-requirements-noi*. All comments received will be posted without change or redaction, so commenters should not include information they do not wish to be posted (e.g., personal or confidential business information).

FOR FURTHER INFORMATION CONTACT: For questions about this Notice contact: Elizabeth B. Bacon, National Telecommunications and Information Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW., Room 4701, Washington, DC 20230; *telephone:* (202) 482–2097; *email: ebacon@ntia.doc.gov*. Please direct media inquiries to the Office of Public Affairs, NTIA, at (202) 482–7002.

SUPPLEMENTARY INFORMATION: NTIA is committed to maintaining a stable, secure Internet that is open for economic growth and innovation. One of the many ways that NTIA supports this commitment is through its role in administering the contract for the operation of the usTLD. The usTLD has historically served as a home for American business, individuals, and localities for the benefit of the nation's Internet community. The current

contract expires on August 31, 2013.[1] Given the expiration date of this contract, NTIA is seeking input from interested parties on the policies and requirements that should govern the usTLD. Comments received in response to this Notice will inform the procurement process leading to the award of a new usTLD contract.

NTIA's goal is that the usTLD be attractive to both business and individual users, be open to and encourage innovation, growth and use of the space, and reflect the multistakeholder model of Internet governance. This notice of inquiry (NOI) seeks to meet that goal by requesting public comment on current policies and how they could be updated to better serve the community's needs. This NOI also seeks views as to how the usTLD can be managed consistent with the multistakeholder model; for example, by developing a mechanism for public input and community engagement in policy development for the usTLD space.

Background

Country code TLDs (ccTLDs) are two-letter suffixes based on the International Organization for Standardization (ISO) 3166, and that represent a particular country or autonomous territory, such as .jp for Japan, or .uk for the United Kingdom. The ccTLD is usually delegated to a trustee or designated manager that is responsible for its administration, operations, and stability.[2] The structure, policies, and registration requirements for each ccTLD are developed at the discretion of its country or territory, carried out by the designated manager, and may vary widely to meet the needs of its user community. Currently, there are 254 active ccTLDs, with some operating as open TLDs, others limited to government use, some requiring a local presence, and others operating as global commercial TLDs.[3]

The ccTLD for the United States is reflected as ''.us'' and referred to in this NOI as the usTLD. Currently, the usTLD is comprised of approximately 1,786,738 domains. The current structure also includes the operations of an estimated 3,666 ''delegated managers'' in the usTLD within the locality name space.[4]

The usTLD has historically served as a home for American businesses, individuals, and localities and is managed by NTIA through a contract with Neustar, Inc.[5] Recognizing the value of the continued operation of the usTLD, NTIA initiated a procurement process for the usTLD contract, selecting Neustar, Inc. in 2001, for a term of six years. NTIA again initiated a procurement process for the usTLD contract in 2007 and again selected Neustar, Inc. The current contract expires on August 31, 2013. Given the expiration date of the current contract, NTIA is taking this opportunity to solicit comment on ways to enhance the current policies and requirements to encourage continued innovation, growth, and increased use of the usTLD space.

In 2007, NTIA issued a Statement of Work (SOW) that outlined several key requirements that govern the usTLD space.[6] For example, to operate in the usTLD space, domain owners must fulfill a U.S. Nexus requirement by providing proof of a bona fide presence or residence within the United States.[7] Each registrar in the usTLD space must provide publicly accessible, accurate, and up-to-date WHOIS information for each .us registrant. Also, the Dot Kids Implementation and Efficiency Act of 2002 (Dot Kids Act), Pub. L. No. 107–317, requires the creation and maintenance of a second level domain within the usTLD (kids.us) as a safe place on the Internet for children.[8] NTIA welcomes comments on whether these requirements are still relevant, and if so, how they might be updated.

In addition, security and stability of the Internet remains a cornerstone of all United States Government (USG) Internet policy concerns. These concerns are reflected in the current contract and SOW through high-level security requirements, including a new requirement for Domain Name System Security Extensions (DNSSEC) deployment within the usTLD.

Community feedback and input into the development of policies and processes is an important component to the management and operation of the usTLD and reflects the USG policy supporting the multistakholder model of Internet governance. Input regarding the value of and interest in developing a mechanism that would allow for community input and consultation into policy development processes within the usTLD is encouraged. Policies of the usTLD should, to the extent practicable, be informed by best practices as developed by the global multistakeholder Internet community.[9]

Request for Comment

The current usTLD contract will expire on August 31, 2013. Given this expiration date, NTIA is seeking public comments regarding how the current policies and requirements impact the ability to create a policy environment that allows for continuing innovation, growth, and use of the usTLD space.

Comments that contain references, studies, research, or other empirical evidence or data that are not widely published should include copies of the referenced materials with the submitted comments. While commenters are welcome to submit comments regarding the questions below and other issues relating to the effective operation and innovation of the usTLD, this NOI is not seeking comments directly regarding the current contractor's performance. Specifically, NTIA is seeking input on the following questions:

1. In general, what are your views on the current policies and requirements

[1] The current contract (2007) is available at *http://www.ntia.doc.gov/page/2011/us-domain-space.*

[2] The ISO 3166 list is available at *http://www.iso.org/iso/iso-3166–1_decoding_table.*

[3] DomainWire Statistical Report, Autumn 2012, CENTR; *http://www.centr.org/DomainWire_Stat_Report_2012_1.*

[4] ''Delegated Managers'' are managers of delegated subdomains in the TLD space such as state.maryland.us or ci.baltimore.md.us. The delegated manager facilitates and manages domain name registrations using this locality name such as tourism.ci.baltimore.md.us to be operated by local registrants. The usTLD contractor is required to have an agreement in place with each delegated manager. In most cases, the usTLD contractor does not have direct contractual agreements with locality registrants within delegated subdomains, however, the ''delegated managers'' are required to enforce usTLD policies with their registrants. For current ''delegated manager'' policies, see *http://www.neustar.us/delegated-managers/.* For a definition and description of ''locality name,'' see RFC1480, ''The US Domain,'' available at http://tools.ietf.org/html/rfc1480.

[5] The usTLD was originally administered, prior to 2001, through a cooperative agreement between the U.S. Government and Network Solutions, Inc. Network Solutions subcontracted administration of the usTLD to the Information Sciences Institute of the University of Southern California. Dr. Jon Postel established the original structure and administrative mechanisms of the usTLD in RFC 1480.

[6] The Statement of Work for the 2007 contract is available at *http://www.ntia.doc.gov/files/ntia/publications/ustld2007_contract.pdf,* Section C, pages 4–27.

[7] The full text of the current U.S. Nexus policy can be found at *http://www.neustar.us/policies/.*

[8] On July 27, 2012, NTIA determined that the kids.us domain was not serving its intended purpose and suspended the operation of the kids.us domain as authorized by the Dot Kids Act. Per statutory requirement any request for proposal issued for the usTLD will contain a requirement to operate the kids.us space.

[9] For example, the Country Code Names Supporting Organization (ccNSO), which is a part of the Internet Corporation for Assigned Names and Numbers (ICANN), is a forum in which best practices are discussed and developed. For more information regarding the work of the ccNSO, please see: *http://ccnso.icann.org/.*

that govern the usTLD space? Are they still relevant? Are there ways to update the policies and practices currently utilized in the management of the usTLD that would add value to the space? Please be specific in your response.

2. Are there policies and practices developed or employed by other ccTLDs, ccTLD organizations, and the stakeholder community that could be incorporated into the usTLD space to spur innovation, growth, and use of the usTLD or improve the domain name registrant experience? Please be specific in your response.

3. How best could the management of the usTLD be structured to reflect the multistakeholder model of policy development, particularly in developing mechanisms that could engage the usTLD community? Please be specific in your response.

4. An important aspect of the multistakeholder model of policy development is a focus on transparency. Is there additional information related to the administration and performance of the usTLD contract that should be collected or shared publicly in the interest of transparency? Please provide specific information as to why or why not. If yes, please provide specific suggestions in particular on what that information should be and how that information can be made available.5. Please provide your views of the usTLD Nexus policy. Does it enhance, impede, or have no impact on the innovation and growth of the usTLD space? Please be specific in your response.

6. What updates could be made to the current usTLD WHOIS policy and practices that could benefit the usTLD registrants, law enforcement, and the broader user community?

7. How can the kids.us space be improved? Please be specific in your response.

8. What updates could be made to usTLD security policies and practices to better align with TLD best practices and ensure continued security and stability of the usTLD?

Dated: January 25, 2013.

Lawrence E. Strickling,

Assistant Secretary for Communications and Information.

[FR Doc. 2013–02058 Filed 1–30–13; 8:45 am]

BILLING CODE 3510–60–P

COMMISSION OF FINE ARTS

Notice of Meeting

The next meeting of the U.S. Commission of Fine Arts is scheduled for 21 February 2013, at 10:00 a.m. in the Commission offices at the National Building Museum, Suite 312, Judiciary Square, 401 F Street NW., Washington, DC 20001–2728. Items of discussion may include buildings, parks, and memorials.

Draft agendas and additional information regarding the Commission are available on our Web site: *www.cfa.gov.* Inquiries regarding the agenda and requests to submit written or oral statements should be addressed to Thomas Luebke, Secretary, U.S. Commission of Fine Arts, at the above address; by emailing *CFAStaff@cfa.gov;* or by calling 202–504–2200. Individuals requiring sign language interpretation for the hearing impaired should contact the Secretary at least 10 days before the meeting date.

Dated: January 25, 2013, in Washington, DC.

Thomas Luebke,

Secretary.

[FR Doc. 2013–01951 Filed 1–30–13; 8:45 am]

BILLING CODE 6331–01–M

CONSUMER PRODUCT SAFETY COMMISSION

Sunshine Act Meeting Notice

TIME AND DATE: Wednesday, January 30, 2013, 10:00 a.m.–11:00 a.m.

PLACE: Room 420, Bethesda Towers, 4330 East West Highway, Bethesda, Maryland.

STATUS: Commission Meeting—Open to the Public .

MATTERS TO BE CONSIDERED:

Briefing Matter: Sections 1112/1118 Requirements for Third Party Conformity Assessment Bodies.

A live Webcast of the Meeting can be viewed at *www.cpsc.gov/webcast.* For a recorded message containing the latest agenda information, call (301) 504–7948.

CONTACT PERSON FOR MORE INFORMATION: Todd A. Stevenson, Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814, (301) 504–7923.

Dated: January 28, 2013.

Todd A. Stevenson,

Secretary.

[FR Doc. 2013–02156 Filed 1–29–13; 4:15 pm]

BILLING CODE 6355–01–P

DEPARTMENT OF DEFENSE

Office of the Secretary

Defense Legal Policy Board; Notice of Federal Advisory Committee Meeting

AGENCY: Department of Defense.

ACTION: Notice.

SUMMARY: Under the provisions of the Federal Advisory Committee Act of 1972 (5 U.S.C., Appendix, as amended), the Government in the Sunshine Act of 1976 (5 U.S.C. 552b, as amended), and 41 CFR 102–3.150, the Department of Defense (DoD) announces the following federal advisory committee meeting of the Defense Legal Policy Board.

ADDRESSES: Holiday Inn Ballston, 4610 N. Fairfax Drive, Arlington, Virginia 22203.

DATES: A meeting of the Defense Legal Policy Board (hereafter referred to as ''the Board'') will be held on Friday, February 15, 2013. The Public Session will begin at 9:00 a.m. and end at 4:00 p.m.

FOR FURTHER INFORMATION CONTACT: Mr. David Gruber, Defense Legal Policy Board, PO Box 3656, Arlington, VA 22203. Email: *StaffDirectorDefenseLegalPolicyBoard@osd.mil.* Phone: (703) 696–5449.

SUPPLEMENTARY INFORMATION:

Purpose of the Meeting: At this meeting, the Board will deliberate on the July 30, 2012 tasking from the Secretary of Defense to review certain military justice cases in combat zones. The Board is interested in written and oral comments from the public, including non-governmental organizations, relevant to this tasking. The mission of the Board is to advise the Secretary of Defense on legal and related legal policy matters within DoD, the achievement of DoD policy goals through legislation and regulations, and other assigned matters.

Agenda: Prior to the Public Session, the Board will conduct an Administrative Session starting at 8:30 a.m. and ending at 9:00 a.m. to address administrative matters. After the Public Session, the Board will conduct an Administrative Session starting at 4:00 p.m. and ending at 4:30 p.m. to prepare for upcoming meetings. Pursuant to 41 CFR 102–3.160, the public may not attend the Administrative Sessions.

Tentative Agenda (updates available from the Board's Staff Director at *StaffDirectorDefenseLegalPolicyBoard@osd.mil*).

- Testimony from representatives of the Secretaries of the Military Departments.

• Testimony from representatives of the military criminal investigation organizations.

• Testimony from subject matter experts on the military justice system.

• Receipt of public comments—3:00 p.m. to 4:00 p.m.

Availability of Materials for the Meeting: A copy of the agenda for the February 15, 2013 meeting and the tasking for the Subcommittee may be obtained at the meeting or from the Board's Staff Director at *StaffDirectorDefenseLegalPolicyBoard@osd.mil*.

Public's Accessibility to the Meeting: Pursuant to 5 U.S.C. 552b and 41 CFR 102–3.140 through 102–3.165, and the availability of space, part of this meeting is open to the public. Seating is limited and is on a first-come basis.

Special Accommodations: Individuals requiring special accommodations to access the public meeting should contact the Staff Director at *StaffDirectorDefenseLegalPolicyBoard@osd.mil* at least five (5) business days prior to the meeting so that appropriate arrangements can be made.

Procedures for Providing Public Comments: Pursuant to 41 CFR 102–3.105(j) and 102–3.140, and section 10(a)(3) of the Federal Advisory Committee Act of 1972, the public or interested organizations may submit written comments to the Board about its mission and topics pertaining to this public session. Written comments must be received by the Designated Federal Officer at least five (5) business days prior to the meeting date so that the comments may be made available to the Board for their consideration prior to the meeting. Written comments should be submitted via email to the address for the Designated Federal Officer in **FOR FURTHER INFORMATION CONTACT** in the following formats: Adobe Acrobat, WordPerfect, or Microsoft Word. Please note that since the Board operates under the provisions of the Federal Advisory Committee Act, as amended, all written comments will be treated as public documents and will be made available for public inspection. If members of the public are interested in making an oral statement, a written statement must be submitted as above along with a request to provide an oral statement. After reviewing the written comments, the Chairperson and the Designated Federal Officer will determine who of the requesting persons will be able to make an oral presentation of their issue during the open portion of this meeting. Determination of who will be making an oral presentation is at the sole discretion of the Committee Chair and the Designated Federal Officer and will depend on time available and relevance to the Committee's activities. Five minutes will be allotted to persons desiring to make an oral presentation. Oral presentations by members of the public will be permitted from 3:00 p.m. to 4:00 p.m. in front of the Board. The number of oral presentations to be made will depend on the number of requests received from members of the public.

Committee's Designated Federal Officer: The Board's Designated Federal Officer is Mr. James Schwenk, Defense Legal Policy Board, PO Box 3656, Arlington, VA 22203. Email: *defenselegalpolicyboarddfo@osd.mil*. Phone: (703) 697–9343. For meeting information please contact Mr. David Gruber, Defense Legal Policy Board, PO Box 3656, Arlington, VA 22203. Email: *StaffDirectorDefenseLegalPolicyBoard@osd.mil*. Phone: (703) 696–5449.

Dated: January 25, 2013.

Aaron Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2013–02033 Filed 1–30–13; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Department of the Army

Notice of Availability for Exclusive, Non-Exclusive, or Partially-Exclusive Licensing of an Invention Concerning Antibodies With Simultaneous Subsite Specificities to Protein and Lipid Epitopes

AGENCY: Department of the Army, DoD.

ACTION: Notice.

SUMMARY: Announcement is made of the availability for licensing of the invention set forth in U.S. Patent Application Serial No. 11/525,574, entitled ''Antibodies with Simultaneous Subsite Specificities to Protein and Lipid Epitopes,'' filed on September 22, 2006. The United States Government as represented by the Secretary of the Army has rights to this invention. Foreign rights may be available.

ADDRESSES: Commander, U.S. Army Medical Research and Materiel Command, ATTN: Command Judge Advocate, MCMR–JA, 504 Scott Street, Fort Detrick, Frederick, MD 21702–5012.

FOR FURTHER INFORMATION CONTACT: For patent issues, Ms. Elizabeth Arwine, Patent Attorney, (301) 619–7808. For licensing issues, Dr. Paul Mele, Office of Research and Technology Applications (ORTA), (301) 619–6664, both at telefax (301) 619–5034.

SUPPLEMENTARY INFORMATION: The invention relates to a method of making antibodies that are dual specific to both (1) amino acid sequences and (2) solid phase lipid structures. The invention has relevance to such important subject matter as making broadly neutralizing monoclonal antibodies to HIV–1.

Brenda S. Bowen,

Army Federal Register Liaison Officer.

[FR Doc. 2013–02097 Filed 1–30–13; 8:45 am]

BILLING CODE 3710–08–P

DEPARTMENT OF DEFENSE

Department of the Army; Army Corps of Engineers

Notice of Intent to Prepare an Environmental Impact Statement for the Sacramento-San Joaquin Delta Islands and Levees Feasibility Study

AGENCY: Department of the Army, U.S. Army Corps of Engineers; DoD.

ACTION: Notice of intent.

SUMMARY: The action being taken is the preparation of an environmental impact statement (EIS) for the Sacramento-San Joaquin Delta Islands and Levees Feasibility Study (Delta Study). The EIS will be prepared in accordance with the National Environmental Policy Act (NEPA). The U.S. Army Corps of Engineers (Corps) will serve as lead agency for compliance with NEPA. The Delta Study will evaluate alternatives to meet the study goals of restoring sustainable ecosystem functions and improving flood risk management in the Delta, Suisun Marsh, and adjacent areas.

DATES: Written comments regarding the scope of the environmental analysis should be received at (see **ADDRESSES**) by March 15, 2013.

ADDRESSES: Written comments concerning this study and requests to be included on the Delta Study mailing list should be submitted to U.S. Army Corps of Engineers, Sacramento District, Public Affairs Office, Attn: Delta Study Scoping, 1325 J Street, Sacramento, CA 95814.

FOR FURTHER INFORMATION CONTACT: The U.S. Army Corps of Engineers Public Affairs Office via telephone at (916) 557–7461, email at *spk-pao@usace.army.mil,* or regular mail at (see **ADDRESSES**).

SUPPLEMENTARY INFORMATION:

1. Proposed Action. The Corps is preparing an EIS to analyze the environmental impacts associated with alternatives for restoring sustainable ecosystem functions and improving

flood risk management in the Delta, Suisun Marsh, and adjacent areas.

2. Alternatives. The EIS will evaluate alternatives for achieving the purpose and need of the proposed action. To be developed through the Corps plan formulation process, the alternatives analyzed may include various combinations of ecosystem restoration and flood risk management measures designed to meet the dual objectives of restored ecosystem functions and improved flood risk management. The array of potential measures and possible combinations into alternatives will be determined based in part on information received during the scoping process.

3. Scoping Process. a. Two public scoping meetings will be held to present an overview of the Delta Study and the EIS process, and to afford all interested parties with an opportunity to provide comments regarding the scope of analysis and potential alternatives. The first public scoping meeting will be held at the Old Sugar Mill 35265 Willow Ave, Clarksburg, California, on February 19, 2013, from 5:00–7:00 p.m. The study presentation is scheduled to begin at 5:30. The second public scoping meeting will be held at the Sheraton Grand Sacramento, 1230 J Street, Sacramento, California, on February 20, 2013, from 2:00–4:00 p.m. The study presentation is scheduled to begin at 2:30.

b. Potentially significant issues to be analyzed in the EIS include programmatic, project specific, and cumulative effects on aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems.

c. The Corps will consult with the State Historic Preservation Officer to comply with the National Historic Preservation Act of 1966, as amended and with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act (16 U.S.C. 1536). The Corps will also coordinate with the U.S. Fish and Wildlife Service to comply with the Fish and Wildlife Coordination Act (16 U.S.C. sec 661). Other resource agencies will be consulted with as applicable.

d. A 45-day public review period will be provided for all interested parties individuals and agencies to review and comment on the draft EIS. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the draft EIS circulation.

4. Availability. The draft EIS is currently scheduled to be available for public review and comment in early 2014.

Dated: January 23, 2013.

William J. Leady,

Professional Engineer, Colonel, U.S. Army, Commanding.

[FR Doc. 2013–02095 Filed 1–30–13; 8:45 am]

BILLING CODE 3720–58–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric corporate filings:

Docket Numbers: EC13–67–000.

Applicants: Wildcat Wind Farm I, LLC.

Description: Application For Authorization Under Section 203 Of The Federal Power Act, Requests For Waivers Of Filing Requirements, Expedited Review and Confidential Treatment Wildcat Wind Farm I, LLC.

Filed Date: 1/22/13.

Accession Number: 20130122–5357.

Comments Due: 5 p.m. ET 2/12/13.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER10–2331–016; ER10–2343–016; ER10–2319–015; ER10–2320–015; ER10–2317–014; ER10–2322–016; ER10–2324–015 ER10–2325–014; ER10–2332–015; ER10–2326–016; ER10–2327–017; ER10–2328–015; ER11–4609–014; ER10–2330–016.

Applicants: J.P. Morgan Ventures Energy Corporation, J.P. Morgan Commodities Canada Corporation, BE Alabama LLC, BE Allegheny LLC, BE CA LLC, BE Ironwood LLC, BE KJ LLC, BE Louisiana LLC, BE Rayle LLC, Cedar Brakes I, L.L.C., Cedar Brakes II, L.L.C., Central Power & Lime LLC, Triton Power Michigan LLC, Utility Contract Funding, L.L.C.

Description: J.P. Morgan Sellers submits Notice of Non-Material Change in Status re Prairie Rose Wind.

Filed Date: 1/22/13.

Accession Number: 20130122–5380.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER10–2405–003; ER10–2414–003; ER10–2427–001.

Applicants: High Prairie Wind Farm II, LLC, Old Trail Wind Farm, LLC, Telocaset Wind Power Partners, LLC.

Description: Notice of Non-Material Change in Status of High Prairie Wind Farm II, LLC, et al.

Filed Date: 1/22/13.

Accession Number: 20130122–5355.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER10–2609–003; ER10–2604–001; ER10–2603–001; ER10–2602–003; ER10–2606–003.

Applicants: Escanaba Paper Company, Luke Paper Company, Rumford Paper Company, New Page Energy Services, Inc., Consolidated Water Power Company.

Description: Notice of Non-Material Change in Status of NewPage MBR Companies.

Filed Date: 1/22/13.

Accession Number: 20130122–5374.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER10–2763–006; ER10–2732–006; ER10–2733–006; ER10–2734–006; ER10–2736–006; ER10–2737–006; ER10–2741–006; ER10–2749–006; ER10–2752–006; ER12–2492–002; ER12–2493–002; ER12–2494–002; ER12–2495–002; ER12–2496–002.

Applicants: Bangor Hydro Electric Company, Emera Energy U.S. Subsidiary No. 1, Inc, Emera Energy U.S. Subsidiary No. 2, Inc., Emera Energy Services Subsidiary No. 1 LLC, Emera Energy Services Subsidiary No. 2 LLC,mera Energy Services Subsidiary No. 3 LLC, Emera Energy Services Subsidiary No. 4 LLC, Emera Energy Services Subsidiary No. 5 LLC, Emera Energy Services Subsidiary No. 6 LLC, Emera Energy Services Subsidiary No. 7 LLC, Emera Energy Services Subsidiary No. 8 LLC, Emera Energy Services Subsidiary No. 9 LLC, Emera Energy Services Subsidiary No. 10, Emera Energy Services, Inc.

Description: Notice of Change in Status of Bangor Hydro Electric Company, et al.

Filed Date: 1/22/13.

Accession Number: 20130122–5373.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER11–3342–001.

Applicants: Dynasty Power Inc..

Description: Notice of Change in Status of Dynasty Power Inc.

Filed Date: 1/22/13.

Accession Number: 20130122–5368.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER11–4266–004.

Applicants: Richland-Stryker Generation LLC.

Description: Notice of Non-Material Change in Status of Richland-Stryker Generation LLC.

Filed Date: 1/22/13.

Accession Number: 20130122–5381.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER12–1653–002.

Applicants: New York Independent System Operator, Inc.

Description: New York Independent System Operator, Inc. submits NYISO

Compliance Filing: Order No. 755, Frequency Regulation to be effective 12/31/9998.

Filed Date: 1/22/13.

Accession Number: 20130122–5270.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER12–2037–001.

Applicants: Spearville 3, LLC.

Description: Notice of Non-Material Change in Status of Spearville 3, LLC..

Filed Date: 1/22/13.

Accession Number: 20130122–5371.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER12–2310–002.

Applicants: Zephyr Wind, LLC.

Description: Zephyr Wind, LLC submits Compliance Filing to be effective 1/22/2013.

Filed Date: 1/22/13.

Accession Number: 20130122–5276.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER12–2314–001.

Applicants: Merrill Lynch Commodities, Inc.

Description: Notice of Non-Material Change in Status of Spinning Spur Wind LLC.

Filed Date: 1/22/13.

Accession Number: 20130122–5350.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER12–2627–002.

Applicants: Catalina Solar, LLC.

Description: Notice of Non-Material Change in Status of Catalina Solar, LLC.

Filed Date: 1/22/13.

Accession Number: 20130122–5352.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER13–168–001.

Applicants: California Independent System Operator Corporation.

Description: California Independent System Operator Corporation submits tariff filing per 35: 2013–01–22 Western-DSR IBAAOA Amendment No. 2 Compliance Filing to be effective 1/3/2013.

Filed Date: 1/22/13.

Accession Number: 20130122–5277.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER13–218–001.

Applicants: California Independent System Operator Corporation.

Description: California Independent System Operator Corporation submits 2012–01–22 Generator Project Downsizing Compliance Filing to be effective 1/1/2013.

Filed Date: 1/22/13.

Accession Number: 20130122–5253.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER13–712–001.

Applicants: Cimarron Wind Energy, LLC.

Description: Cimarron Wind Energy, LLC submits Amendment to Notice of Succession and Revisions to Market Based Rate Tariff to be effective 1/5/2013.

Filed Date: 1/22/13.

Accession Number: 20130122–5266.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER13–789–000.

Applicants: New York State Electric & Gas Corporation, New York Independent System Operator, Inc.

Description: New York State Electric & Gas Corporation submits Amended Restated SGIA No. 1677 among NYISO, NYSEG and AES Westover to be effective 12/26/2012.

Filed Date: 1/22/13.

Accession Number: 20130122–5244.

Comments Due: 5 p.m. ET 2/12/13.

Take notice that the Commission received the following public utility holding company filings:

Docket Numbers: PH13–10–000.

Applicants: The Goldman Sachs Group, Inc.

Description: The Goldman Sachs Group, Inc. submits Notice of Material Change in Facts of FERC–65B Waiver Notification.

Filed Date: 1/22/13.

Accession Number: 20130122–5330.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: PH13–11–000.

Applicants: JP Morgan Chase & Co.

Description: JPMorgan Chase & Co. submits FERC–65–B Waiver Notification.

Filed Date: 1/22/13.

Accession Number: 20130122–5378.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: PH13–12–000.

Applicants: NewPage Holdings, Inc.

Description: NewPage Holdings, Inc. submits FERC–65–B Waiver Notification.

Filed Date: 1/22/13.

Accession Number: 20130122–5379.

Comments Due: 5 p.m. ET 2/12/13.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: January 23, 2013.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2013–02068 Filed 1–30–13; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #2

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER10–2460–004; ER10–2461–004; ER12–682–005; ER10–2463–004; ER11–2201–008; ER13–17–002; ER12–1311–004 ER10–2466–005; ER11–4029–004.

Applicants: Canandaigua Power Partners, LLC, Canandaigua Power Partners II, LLC, Erie Wind, LLC, Evergreen Wind Power, LLC, Evergreen Wind Power III, LLC, Niagara Wind Power, LLC, Stetson Holdings, LLC, Stetson Wind II, LLC, Vermont Wind, LLC.

Description: Notice of Change in Status of Canandaigua Power Partners, LLC, et al.

Filed Date: 1/23/13.

Accession Number: 20130123–5127.

Comments Due: 5 p.m. ET 2/13/13.

Docket Numbers: ER11–4507–003; ER13–760–000; ER11–4501–004; ER12–128–001; ER13–759–000; ER11–4500–003; ER13–758–000; ER12–979–002; ER11–4498–003; ER11–4499–003.

Applicants: Caney River Wind Project, LLC, Rocky Ridge Wind Project, LLC, Smoky Hills Wind Farm, LLC, Smoky Hills Wind Project II, LLC, Canastota Windpower, LLC, EGP Stillwater Solar, LLC, Enel Stillwater, LLC.

Description: Supplement to January 15, 2013 Notice of Change in Status of Smokey Hills Wind Farm, LLC, et al.

Filed Date: 1/18/13.

Accession Number: 20130118–5259.

Comments Due: 5 p.m. ET 2/8/13.

Docket Numbers: ER12–281–002.

Applicants: Northampton Generating Company, L.P.

Description: Notice of Non-Material Change in Status of Northampton Generating Company, L.P.

Filed Date: 1/22/13.

Accession Number: 20130122–5386.

Comments Due: 5 p.m. ET 2/12/13.

Docket Numbers: ER13–667–001.

Applicants: Tucson Electric Power Company.

Description: Tucson Electric Power Company submits tariff filing per 35.17(b): Errata to TEP Filing to Revise

MBR Ancillary Service Category Status to be effective 2/26/2013.

Filed Date: 1/23/13.

Accession Number: 20130123–5076.

Comments Due: 5 p.m. ET 2/13/13.

Docket Numbers: ER13–668–001.

Applicants: UniSource Energy Development Company.

Description: UniSource Energy Development Company submits tariff filing per 35.17(b): Errata to UED Filing to Revise MBR Ancillary Service Category Status to be effective 2/26/2013.

Filed Date: 1/23/13

Accession Number: 20130123–5096.

Comments Due: 5 p.m. ET 2/13/13.

Docket Numbers: ER13–670–001.

Applicants: UNS Electric, Inc.

Description: UNS Electric, Inc. submits tariff filing per 35.17(b): Errata to UNS Filing to Revise MBR Ancillary Service Category Status to be effective 2/26/2013.

Filed Date: 1/23/13.

Accession Number: 20130123–5100.

Comments Due: 5 p.m. ET 2/13/13.

Docket Numbers: ER13–739–001.

Applicants: Texpo Power, LP.

Description: Texpo Power, LP submits tariff filing per 35.17(b): Amendment of Pending Filing 1 to be effective 1/11/2013.

Filed Date: 1/23/13.

Accession Number: 20130123–5084.

Comments Due: 5 p.m. ET 2/13/13.

Docket Numbers: ER13–740–001.

Applicants: EnerPenn USA LLC.

Description: EnerPenn USA LLC submits tariff filing per 35.17(b): Amendment of Pending Filing 1 to be effective 1/11/2013.

Filed Date: 1/23/13.

Accession Number: 20130123–5082.

Comments Due: 5 p.m. ET 2/13/13.

Docket Numbers: ER13–751–001.

Applicants: Midwest Independent Transmission System Operator, Inc.

Description: Midwest Independent Transmission System Operator, Inc. submits tariff filing per 35.17(b): 01–22–2013 MDU Attachment O and GG Errata to be effective 1/1/2013.

Filed Date: 1/23/13.

Accession Number: 20130123–5000.

Comments Due: 5 p.m. ET 2/13/13.

Docket Numbers: ER13–790–000.

Applicants: Nevada Power Company.

Description: Nevada Power Company submits tariff filing per 35.13(a)(2)(iii: Rate Schedule No. 111 First Amended & Restated PPA ORNI 42 to be effective 1/24/2013.

Filed Date: 1/23/13.

Accession Number: 20130123–5148.

Comments Due: 5 p.m. ET 2/13/13.

Take notice that the Commission received the following foreign utility company status filings:

Docket Numbers: FC13–7–000.

Applicants: Conestogo Wind, LP.

Description: Notification of Self-Certification of Foreign Utility Company Status of Conestogo Wind, LP.

Filed Date: 1/23/13.

Accession Number: 20130123–5135.

Comments Due: 5 p.m. ET 2/13/13.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: January 23, 2013.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2013–02069 Filed 1–30–13; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL 9774–6]

Clean Air Act Operating Permit Program; Petition for Objection to State Operating Permit for Wisconsin Public Service Corporation—JP Pulliam Plant

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of final order on petition to object to Clean Air Act operating permit.

SUMMARY: This document announces that the EPA Administrator has responded to a petition asking EPA to object to a Clean Air Act (Act) operating permit issued by the Wisconsin Department of Natural Resources. Specifically, the Administrator denied the petition submitted by David Bender of McGillivray Westerberg and Bender, LLC, on behalf of the Sierra Club, to object to the operating permit for Wisconsin Public Service Corporation—JP Pulliam Plant.

Pursuant to section 505(b)(2) of the Act, a petitioner may seek judicial review in the United States Court of Appeals for the appropriate circuit of those portions of the petition which EPA denied. Any petition for review shall be filed within 60 days from the date this notice appears in the **Federal Register**, pursuant to section 307 of the Act.

ADDRESSES: You may review a copy of the final order, the petition, and other supporting information at the EPA Region 5 Office, 77 West Jackson Boulevard, Chicago, Illinois 60604. If you wish to examine these documents, you should make an appointment at least 24 hours before visiting day. Additionally, the final order for the JP Pulliam Plant petition is available electronically at: *http://www.epa.gov/region07/air/title5/petitiondb/petitions/pulliam_response2012.pdf.*

FOR FURTHER INFORMATION CONTACT: Genevieve Damico, Chief, Air Permits Section, Air Programs Branch, Air and Radiation Division, EPA, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, telephone (312) 353–4761.

SUPPLEMENTARY INFORMATION: The Act affords EPA a 45-day period to review, and object to as appropriate, operating permits proposed by state permitting authorities. Section 505(b)(2) of the Act authorizes any person to petition the EPA Administrator within 60 days after the expiration of the EPA review period to object to state operating permits if EPA has not done so. A petition must be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the state, unless the petitioner demonstrates that it was impracticable to raise issues during the comment period, or the grounds for the issues arose after this period.

On October 2, 2012, David Bender of McGillivray Westerberg & Bender LLC, submitted a petition to EPA on behalf of the Sierra Club, requesting that EPA object to the Title V operating permit for the Wisconsin Public Service Corporation—JP Pulliam Plant. The petition raised issues regarding: (1) the alleged failure to include heat input limits from permits issued in 1987 and 1988 and/or reflect Prevention of Significant Deterioration/Nonattainment New Source Review requirements; and (2) the sufficiency of particulate matter monitoring for boilers B24—B27.

On January 7, 2013, the Administrator issued an order denying the petition. The order explains the reasons behind EPA's conclusions.

Dated: January 17, 2013.

Susan Hedman,

Regional Administrator, Region 5.

[FR Doc. 2013–02105 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–9774–5]

Notice of Issuance of Prevention of Significant Deterioration Modification and Part 71 Operating Permit Renewal to NRG Backup Generation Services

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces that on November 26, 2012, EPA issued a Modification to a Prevention of Significant Deterioration (PSD) permit to NRG Backup Generation Services. NRG Backup Generation Services owns and operates four diesel-fired generators for Treasure Island Resort and Casino on land held in trust for the Prairie Island Indian Community in Red Wing, Minnesota. The modified PSD permit changes the required interval of nitrogen oxide performance testing for the four engines from every three years to every five years. In a separate action on November 26, 2012, EPA issued a title V permit to operate renewal to NRG Backup Generation Services pursuant to title V of the Clean Air Act. This permit authorizes NRG Backup Generation Services to operate the four diesel-fired generators for peak load management and backup power at the casino.

DATES: During the public comment period, which ended on October 19, 2012, EPA received a comment on the modified draft PSD permit and draft title V permit. Therefore, in accordance with 40 CFR 124.15(b) and 71.11(i)(2), both permits became effective on December 26, 2012.

ADDRESSES: The final signed permits are available for public inspection online at *http://yosemite.epa.gov/r5/r5ard.nsf/Tribal+Permits!OpenView,* or during normal business hours at the following address: U.S. Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois, 60604. We recommend that you telephone Michael Langman, Environmental Scientist, at (312) 886–6867 before visiting the Region 5 office.

FOR FURTHER INFORMATION CONTACT: Michael Langman, Environmental Scientist, Air Permits Section, Air Programs Branch, U.S. Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois, 60604, Telephone Number: (312) 886–6867, Email Address: *langman.michael@epa.gov.*

SUPPLEMENTARY INFORMATION: This section provides supplemental information by answering the following questions:

A. What is the background information?
B. What is the purpose of this notice?

A. What is the background information?

NRG Backup Generation Services, formerly Energy Alternatives, Inc., owns and operates four diesel-fired generators for Treasure Island Resort and Casino in Red Wing, Minnesota. All four generators are located on land held in trust for the Prairie Island Indian Community. The generators are used for peak load management and backup power at the casino.

On August 14, 2007, Energy Alternatives, Inc. submitted to EPA an application to change the nitrogen oxide performance testing interval from every three years to every five years. EPA approved this change based on previous performance testing results.

In October 2008, Energy Alternatives, Inc. submitted an application to renew its title V permit.

EPA first made available for public comment a draft Federal title V permit during a public comment period that ended on May 10, 2010. On May 10, 2010, EPA received a comment from Energy Alternatives, Inc. explaining that the requested change to the nitrogen oxide performance testing interval was not included in the title V permit. Since the testing interval was established in a PSD permit and since title V permits cannot change PSD requirements, a modification to the PSD permit was required.

On September 19, 2012, EPA made available for public comment a draft Federal PSD permit modification, Permit No. PSD–PI–2704900084–2012–02, which included the nitrogen oxide testing interval requested by Energy Alternatives. On the same day, EPA made available for public comment a draft Federal title V permit to operate, Permit No. V–PI–2704900084–2012–10. This title V permit incorporated all applicable air quality requirements for the four diesel-fired, emergency and peak load sharing generators Energy Alternatives owned and operated at Treasure Island Resort and Casino, including the monitoring necessary to ensure compliance with the requirements of the permit. In accordance with the requirements of 40 CFR 124.10(b)(1) and 71.11(d), EPA provided the public with 30 days to comment on both draft permits.

During the public comment period, EPA received one comment from NRG Backup Generation Services notifying EPA that ownership of the four diesel-fired engines changed from Energy Alternatives, Inc. to NRG Backup Generation Services. EPA finalized both permits and provided copies to the applicant pursuant to 40 CFR 124.15(b) and 71.11(i).

EPA is not aware of any outstanding enforcement actions against NRG Backup Generation Services and believes the issuance of these permits is non-controversial.

B. What is the purpose of this notice?

EPA is notifying the public of the issuance of the PSD permit modification and title V operating permit to NRG Backup Generation Services on November 26, 2012. Since EPA received a comment on the draft PSD permit modification and the draft title V permit, both permits became effective on December 26, 2012, pursuant to 40 CFR 124.15(b) and 71.11(i)(2).

Authority: 42 U.S.C. 7401 *et seq.*

Dated: January 17, 2013.

Susan Hedman,

Regional Administrator, Region 5.

[FR Doc. 2013–02106 Filed 1–30–13; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL ELECTION COMMISSION

Sunshine Act Meeting Notice

AGENCY: Federal Election Commission.

DATE AND TIME: Tuesday, February 5, 2013 At 10:00 a.m.

PLACE: 999 E Street NW., Washington, DC.

STATUS: This meeting will be closed to the public.

ITEMS TO BE DISCUSSED: Compliance matters pursuant to 2 U.S.C. 437g. Audits conducted pursuant to 2 U.S.C. 437g, 438(b), and Title 26, U.S.C. Matters concerning participation in civil actions or proceedings or arbitration. Internal personnel rules and procedures or matters affecting a particular employee.

* * * * *

PERSON TO CONTACT FOR INFORMATION: Judith Ingram, Press Officer, Telephone: (202) 694–1220.

Shelley E. Garr,

Deputy Secretary of the Commission.

[FR Doc. 2013–02200 Filed 1–29–13; 4:15 pm]

BILLING CODE 6715–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Agency for Healthcare Research and Quality

Patient Safety Organizations: Voluntary Relinquishment From the BREF PSO

AGENCY: Agency for Healthcare Research and Quality (AHRQ), HHS.

ACTION: Notice of delisting.

SUMMARY: The Patient Safety and Quality Improvement Act of 2005 (Patient Safety Act), Public Law 109–41, 42 U.S.C. 299b–21—b–26, provides for the formation of Patient Safety Organizations (PSOs), which collect, aggregate, and analyze confidential information regarding the quality and safety of health care delivery. The Patient Safety and Quality Improvement Final Rule (Patient Safety Rule), 42 CFR part 3, authorizes AHRQ, on behalf of the Secretary of HHS, to list as a PSO an entity that attests that it meets the statutory and regulatory requirements for listing. A PSO can be ''delisted'' by the Secretary if it is found no longer to meet the requirements of the Patient Safety Act and Patient Safety Rule, or when a PSO chooses to voluntarily relinquish its status as a PSO for any reason. AHRQ has accepted a notification of voluntary relinquishment from the BREF PSO of its status as a PSO, and has delisted the PSO accordingly.

DATES: The directories for both listed and delisted PSOs are ongoing and reviewed weekly by AHRQ. The delisting was effective at 12:00 Midnight ET (2400) on December 23, 2012.

ADDRESSES: Both directories can be accessed electronically at the following HHS Web site: *http://www.pso.AHRQ.gov/index.html.*

FOR FURTHER INFORMATION CONTACT: Eileen Hogan, Center for Quality Improvement and Patient Safety, AHRQ, 540 Gaither Road, Rockville, MD 20850; Telephone (toll free): (866) 403–3697; Telephone (local): (301) 427–1111; TTY (toll free): (866) 438–7231; TTY (local): (301) 427–1130; Email: *pso@AHRQ.hhs.gov.*

SUPPLEMENTARY INFORMATION:

Background

The Patient Safety Act authorizes the listing of PSOs, which are entities or component organizations whose mission and primary activity is to conduct activities to improve patient safety and the quality of health care delivery.

HHS issued the Patient Safety Rule to implement the Patient Safety Act. AHRQ administers the provisions of the Patient Safety Act and Patient Safety Rule (PDF file, 450 KB. PDF Help) relating to the listing and operation of PSOs. The Patient Safety Rule authorizes AHRQ to list as a PSO an entity that attests that it meets the statutory and regulatory requirements for listing. A PSO can be ''delisted'' if it is found no longer to meet the requirements of the Patient Safety Act and Patient Safety Rule, or when a PSO chooses to voluntarily relinquish its status as a PSO for any reason. Section 3.108(d) of the Patient Safety Rule requires AHRQ to provide public notice when it removes an organization from the list of federally approved PSOs.

AHRQ has accepted a notification from the BREF PSO, PSO number P0035, which is a component entity of the Biomedical Research and Education Foundation, to voluntarily relinquish its status as a PSO. Accordingly, the BREF PSO was delisted effective at 12:00 Midnight ET (2400) on December 23, 2012. More information on PSOs can be obtained through AHRQ's PSO Web site at *http://www.pso.AHRQ.gov/index.html.*

Dated: January 17, 2013.

Carolyn M. Clancy,

Director.

[FR Doc. 2013–01908 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–90–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Agency for Healthcare Research and Quality

Patient Safety Organizations: Voluntary Relinquishment From The Connecticut Hospital Association Federal Patient Safety Organization

AGENCY: Agency for Healthcare Research and Quality (AHRQ), HHS.

ACTION: Notice of delisting.

SUMMARY: The Patient Safety and Quality Improvement Act of 2005 (Patient Safety Act), Public Law 109–41, 42 U.S.C. 299b–21—b–26, provides for the formation of Patient Safety Organizations (PSOs), which collect, aggregate, and analyze confidential information regarding the quality and safety of health care delivery. The Patient Safety and Quality Improvement Final Rule (Patient Safety Rule), 42 CFR part 3, authorizes AHRQ, on behalf of the Secretary of HHS, to list as a PSO an entity that attests that it meets the statutory and regulatory requirements for listing. A PSO can be ''delisted'' by the Secretary if it is found no longer to meet the requirements of the Patient Safety Act and Patient Safety Rule, or when a PSO chooses to voluntarily relinquish its status as a PSO for any reason. AHRQ has accepted a notification of voluntary relinquishment from The Connecticut Hospital Association Federal Patient Safety Organization of its status as a PSO, and has delisted the PSO accordingly.

DATES: The directories for both listed and delisted PSOs are ongoing and reviewed weekly by AHRQ. The delisting was effective at 12:00 Midnight ET (2400) on December 1, 2012.

ADDRESSES: Both directories can be accessed electronically at the following HHS Web site: *http://www.pso.AHRQ.gov/index.html.*

FOR FURTHER INFORMATION CONTACT: Eileen Hogan, Center for Quality Improvement and Patient Safety, AHRQ, 540 Gaither Road, Rockville, MD 20850; Telephone (toll free): (866) 403–3697; Telephone (local): (301) 427–1111; TTY (toll free): (866) 438–7231; TTY (local): (301) 427–1130; Email: *pso@AHRQ.hhs.gov.*

SUPPLEMENTARY INFORMATION:

Background

The Patient Safety Act authorizes the listing of PSOs, which are entities or component organizations whose mission and primary activity is to conduct activities to improve patient safety and the quality of health care delivery.

HHS issued the Patient Safety Rule to implement the Patient Safety Act. AHRQ administers the provisions of the Patient Safety Act and Patient Safety Rule (PDF file, 450 KB. PDF Help) relating to the listing and operation of PSOs. The Patient Safety Rule authorizes AHRQ to list as a PSO an entity that attests that it meets the statutory and regulatory requirements for listing. A PSO can be ''delisted'' if it is found no longer to meet the requirements of the Patient Safety Act and Patient Safety Rule, or when a PSO chooses to voluntarily relinquish its status as a PSO for any reason. Section 3.108(d) of the Patient Safety Rule requires AHRQ to provide public notice when it removes an organization from the list of federally approved PSOs.

AHRQ has accepted a notification from The Connecticut Hospital Association Federal Patient Safety Organization, PSO number P0070, which is a component entity of The Connecticut Healthcare Research and Education Foundation, Incorporated, to voluntarily relinquish its status as a

PSO. Accordingly, The Connecticut Hospital Association Federal Patient Safety Organization was delisted effective at 12:00 Midnight ET (2400) on December 1, 2012.

More information on PSOs can be obtained through AHRQ's PSO Web site at *http://www.pso.AHRQ.gov/index.html.*

Dated: January 17, 2O13.

Carolyn M. Clancy,

Director.

[FR Doc. 2013–01919 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–90–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Agency for Healthcare Research and Quality

Patient Safety Organizations: Voluntary Relinquishment From Ryder Trauma Center

AGENCY: Agency for Healthcare Research and Quality (AHRQ), HHS.

ACTION: Notice of delisting.

SUMMARY: The Patient Safety and Quality Improvement Act of 2005 (Patient Safety Act), Public Law 109–41, 42 U.S.C. 299b–21—b–26, provides for the formation of Patient Safety Organizations (PSOs), which collect, aggregate, and analyze confidential information regarding the quality and safety of health care delivery. The Patient Safety and Quality Improvement Final Rule (Patient Safety Rule), 42 CFR Part 3, authorizes AHRQ, on behalf of the Secretary of HHS, to list as a PSO an entity that attests that it meets the statutory and regulatory requirements for listing. A PSO can be ''delisted'' by the Secretary if it is found no longer to meet the requirements of the Patient Safety Act and Patient Safety Rule, or when a PSO chooses to voluntarily relinquish its status as a PSO for any reason. AHRQ has accepted a notification of voluntary relinquishment from Ryder Trauma Center of its status as a PSO, and has delisted the PSO accordingly.

DATES: The directories for both listed and delisted PSOs are ongoing and reviewed weekly by AHRQ. The delisting was effective at 12:00 Midnight ET (2400) on November 20, 2012.

ADDRESSES: Both directories can be accessed electronically at the following HHS Web site: *http://www.pso.AHRQ.gov/index.html.*

FOR FURTHER INFORMATION CONTACT: Eileen Hogan, Center for Quality Improvement and Patient Safety, AHRQ, 540 Gaither Road, Rockville, MD 20850; Telephone (toll free): (866) 403–3697; Telephone (local): (301) 427–1111; TTY (toll free): (866) 438–7231; TTY (local): (301) 427–1130; Email: *pso@AHRQ.hhs.gov.*

SUPPLEMENTARY INFORMATION:

Background

The Patient Safety Act authorizes the listing of PSOs, which are entities or component organizations whose mission and primary activity is to conduct activities to improve patient safety and the quality of health care delivery.

HHS issued the Patient Safety Rule to implement the Patient Safety Act. AHRQ administers the provisions of the Patient Safety Act and Patient Safety Rule (PDF file, 450 KB. PDF Help) relating to the listing and operation of PSOs.

The Patient Safety Rule authorizes AHRQ to list as a PSO an entity that attests that it meets the statutory and regulatory requirements for listing. A PSO can be ''delisted'' if it is found no longer to meet the requirements of the Patient Safety Act and Patient Safety Rule, or when a PSO chooses to voluntarily relinquish its status as a PSO for any reason. Section 3.108(d) of the Patient Safety Rule requires AHRQ to provide public notice when it removes an organization from the list of federally approved PSOs.

AHRQ has accepted a notification from Ryder Trauma Center, PSO number P0019, which is a component entity of Jackson Memorial Hospital, to voluntarily relinquish its status as a PSO. Accordingly, Ryder Trauma Center was delisted effective at 12:00 Midnight ET (2400) on November 20, 2012.

More information on PSOs can be obtained through AHRQ's PSO Web site at *http://www.pso.AHRQ.gov/index.html.*

Dated: January 17, 2013.

Carolyn M. Clancy,

Director.

[FR Doc. 2013–01909 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–90–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: Child Care and Development Fund Annual Financial Report (ACF–696T) for Tribes.

OMB No.: 0970–0195.

Description: Tribes use the Financial Report Form ACF–696T to report Child Care and Development Fund (CCDF) expenditures. Authority to collect and report this information is found in Section 658G of the Child Care and Development Block Grant Act of 1990, as revised. In addition to the Program Reporting Requirements set forth in 45 CFR part 98, subpart H, the regulations at 45 CFR 98.65(g) and 98.67(c)(1) authorize the Secretary to require financial reports as necessary.

Tribal grantees submit the ACF–696T report on an annual basis on behalf of the Tribal Lead Agency administering the Child Care and Development Fund (CCDF).

The previous information collection requirements related to the American Recovery and Reinvestment Act (ARRA) of 2009 (Pub. L. 111–5) have been deleted from this reporting form.

Respondents: Tribes and Tribal Organizations that are CCDF grantees.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Estimated average burden hours per response	Estimated total burden hours
ACF–696T CCDF Financial Reporting Form for Tribes	260	1	6	1560

Estimated Total Annual Burden Hours: 1560.

Additional Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Planning, Research and Evaluation, 370 L'Enfant Promenade SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer. All requests should be

identified by the title of the information collection. Email address: *infocollection@acf.hhs.gov.*

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, Fax: 202–395–7285, *Email: OIRA_SUBMISSION@OMB.EOP.GOV,* Attn: Desk Officer for the Administration for Children and Families.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 2013–02079 Filed 1–30–13; 8:45 am]

BILLING CODE 4184–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2012–N–0427]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Medical Devices; Inspection by Accredited Persons Program

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Fax written comments on the collection of information by March 4, 2013.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be faxed to the Office of Information and Regulatory Affairs, OMB, Attn: FDA Desk Officer, FAX: 202–395–7285, or emailed to *oira_submission@omb.eop.gov.* All comments should be identified with the OMB control number 0910–0510. Also include the FDA docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Daniel Gittleson, Office of Information Management, Food and Drug Administration, 1350 Piccard Dr., PI50–400B, Rockville, MD 20850, 301–796–5156, *Daniel.Gittleson@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION: In compliance with 44 U.S.C. 3507, FDA has submitted the following proposed collection of information to OMB for review and clearance.

Inspection by Accredited Persons Program Under the Medical Device User Fee and Modernization Act of 2002—(OMB Control Number 0910–0510)—Extension

The Medical Device User Fee and Modernization Act of 2002 (MDUFMA) (Pub. L. 107–250) was signed into law on October 26, 2002. Section 201 of MDUFMA adds a new paragraph (g) to section 704 of the Federal, Food, Drug, and Cosmetic Act (the FD&C Act) (21 U.S.C. 374), directing FDA to accredit third parties (accredited persons) to conduct inspections of eligible manufacturers of class II or class III devices. This is a voluntary program. FDA has a guidance document that provides information for those interested in participating in this program. The guidance is entitled ''Implementation of the Inspection by Accredited Persons Program Under the Medical Device User Fee and Modernization Act of 2002; Accreditation Criteria.''

FDA based these estimates on conversations with industry, trade association representatives, and internal FDA estimates. Once an organization is accredited, it will not be required to reapply.

In the **Federal Register** of May 09, 2012 (77 FR 27234), FDA published a 60-day notice requesting public comment on the proposed collection of information. No comments were received.

FDA estimates the burden of this collection of information as follows:

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN [1]

Section of the FD&C Act	Activity	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per response	Total hours
704(g)	Request for accreditation	1	1	1	80	80
Total						80

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Dated: January 25, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02092 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2012–N–0324]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Guidance for Industry, FDA Staff, and Foreign Governments: Fiscal Year 2012 Medical Device User Fee Small Business Qualification and Certification

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Fax written comments on the collection of information by March 4, 2013.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be faxed to the Office of Information and Regulatory Affairs, OMB, Attn: FDA Desk Officer, FAX: 202–395–7285, or emailed to *oira_submission@omb.eop.gov.* All comments should be identified with the OMB control number 0910–0508. Also include the FDA docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Daniel Gittleson, Office of Information Management, Food and Drug Administration, 1350 Piccard Dr., PI50–400B, Rockville, MD 20850, 301–796–5156, *Daniel.Gittleson@fda.hhs.gov*.

SUPPLEMENTARY INFORMATION: In compliance with 44 U.S.C. 3507, FDA has submitted the following proposed collection of information to OMB for review and clearance.

Guidance for Industry, FDA Staff, and Foreign Governments: Fiscal Year 2012 Medical Device User Fee Small Business Qualification and Certification—(OMB Control Number 0910–0508)—Extension

Section 101 of the Medical Device User Fee and Modernization Act (MDUFMA) (Pub. L. 107–250) amends the Federal Food, Drug, and Cosmetic Act (the FD&C Act) to provide for user fees for certain medical device applications. FDA published a **Federal Register** notice on August 1, 2011 (76 FR 45826), announcing fees for fiscal year (FY) 2012. To avoid harming small businesses, MDUFMA provides for reduced or waived fees for applicants who qualify as a ''small business.'' This means there are two levels of fees; a standard fee and a reduced or waived small business fee. You can qualify for a small business fee discount under MDUFMA if you reported gross receipts or sales of no more than $100 million on your Federal income tax return for the most recent tax year. If you have any affiliates, partners, or parent firms, you must add their gross receipts or sales to yours, and the total must be no more than $100 million. If your gross receipts or sales are no more than $30 million, including all of your affiliates, partners, and parent firms, you will also qualify for a waiver of the fee for your first (ever) premarket application (product development protocol, biologics licensing application, or premarket report). An applicant must pay the full standard fee unless it provides evidence demonstrating to FDA that it meets the ''small business'' criteria (Form FDA 3602, ''FY 2012 MDUFMA Small Business Qualification Certification—For a Business Headquartered in the United States''). The evidence required by MDUFMA is a copy of the most recent Federal income tax return of the applicant, and any affiliate, partner, or parent firm. FDA will review these materials and decide whether an applicant is a ''small business'' within the meaning of MDUFMA.

The 2007 Amendments provide an alternative way for a foreign business to qualify as a small business eligible to pay a significantly lower fee when a medical device user fee must be paid (Form FDA 3602A, ''FY 2012 MDUFMA Foreign Small Business Qualification Certification—For a Business Headquartered Outside the United States''). Before passage of the 2007 Amendments, the only way a business could qualify as a small business was to submit a Federal (U.S.) income tax return showing its gross receipts or sales that did not exceed a statutory threshold, currently, $100 million. If a business could not provide a Federal income tax return, it did not qualify as a small business and had to pay the standard (full) fee. Because many foreign businesses have not, and cannot, file a Federal (U.S.) income tax return, this requirement has effectively prevented those businesses from qualifying for the small business fee rates. Thus, foreign governments, including the European Union, have objected. In lieu of a Federal income tax return, the 2007 Amendments will allow a foreign business to qualify as a small business by submitting a certification from its national taxing authority, the foreign equivalent of our Internal Revenue Service. This certification, referred to as a ''National Taxing Authority Certification,'' must: Be in English; be from the national taxing authority of the country in which the business is headquartered; provide the business' gross receipts or sales for the most recent year, in both the local currency and in U.S. dollars, and the exchange rate used in converting local currency to U.S. dollars; provide the dates during which the reported receipts or sales were collected; and bear the official seal of the national taxing authority.

Both Forms FDA 3602 and FDA 3602A are available in the guidance document, ''Guidance for Industry, Food and Drug Administration Staff, and Foreign Governments: FY 2012 Medical Device User Fee Small Business Qualification and Certification,'' available on the Internet at: *http://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/Overview/MedicalDeviceUserFeeandModernizationActMDUFMA/UCM267051.pdf.* This guidance describes the criteria FDA will use to decide whether an entity qualifies as a MDUFMA small business and will help prospective applicants understand what they need to do to meet the small business criteria for FY 2012.

The Form FDA 3602 burden is based on the number of applications received in the last 3 years. FDA believes most entities that submit Form FDA 3602A will not have any affiliates, and very few will have more than three or four affiliates. Based on our experience with Form FDA 3602A, FDA believes each business will require 1 hour to complete the form.

In the **Federal Register** of April 18, 2012 (77 FR 23267), FDA published a 60-day notice requesting public comment on the proposed collection of information. No comments were received.

FDA estimates the burden of this collection of information as follows:

TABLE 1—ESTIMATED ANNUAL REPORTING BURDEN [1]

Form FDA No.	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per response	Total hours
3602	4,200	1	4,200	1	4,200
3602A	900	1	900	1	900
Total					5,100

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Dated: January 25, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02093 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2012–P–0916]

Determination That DIFFERIN (Adapalene) Solution, 0.1%, Was Not Withdrawn From Sale for Reasons of Safety or Effectiveness

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) has determined that DIFFERIN (adapalene) solution, 0.1% (NDA 20–338), was not withdrawn from sale for reasons of safety or effectiveness. This determination will allow FDA to approve abbreviated new drug applications (ANDAs) for adapalene solution, 0.1%, if all other legal and regulatory requirements are met.

FOR FURTHER INFORMATION CONTACT: Nisha Shah, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, rm. 6222, Silver Spring, MD 20993–0002, 301–796–4455.

SUPPLEMENTARY INFORMATION: In 1984, Congress enacted the Drug Price Competition and Patent Term Restoration Act of 1984 (Pub. L. 98–417) (the 1984 amendments), which authorized the approval of duplicate versions of drug products approved under an ANDA procedure. ANDA applicants must, with certain exceptions, show that the drug for which they are seeking approval contains the same active ingredient in the same strength and dosage form as the ''listed drug,'' which is a version of the drug that was previously approved. ANDA applicants do not have to repeat the extensive clinical testing otherwise necessary to gain approval of a new drug application (NDA). The only clinical data required in an ANDA are data to show that the drug that is the subject of the ANDA is bioequivalent to the listed drug.

The 1984 amendments include what is now section 505(j)(7) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355(j)(7)), which requires FDA to publish a list of all approved drugs. FDA publishes this list as part of the ''Approved Drug Products With Therapeutic Equivalence Evaluations,'' which is known generally as the ''Orange Book.'' Under FDA regulations, drugs are removed from the list if the Agency withdraws or suspends approval of the drug's NDA or ANDA for reasons of safety or effectiveness or if FDA determines that the listed drug was withdrawn from sale for reasons of safety or effectiveness (21 CFR 314.162). Under § 314.161(a)(1) (21 CFR 314.161(a)(1)), the Agency must determine whether a listed drug was withdrawn from sale for reasons of safety or effectiveness before an ANDA that refers to that listed drug may be approved. FDA may not approve an ANDA that does not refer to a listed drug.

DIFFERIN (adapalene) solution, 0.1%, is the subject of NDA 20–338, held by Galderma Laboratories, L.P., and initially approved on May 31, 1996, and is indicated for the topical treatment of acne vulgaris. This product is currently listed in the ''Discontinued Drug Product List'' section of the Orange Book.

Ei, Inc., on behalf of Call, Inc. (d/b/a Rochester Pharmaceuticals), submitted a citizen petition dated August 23, 2012 (Docket No. FDA–2012–P–0916), under 21 CFR 10.30, requesting that the Agency determine whether DIFFERIN (adapalene) solution, 0.1%, was withdrawn from sale for reasons of safety or effectiveness.

After considering the citizen petition and reviewing Agency records, FDA has determined under § 314.161 that DIFFERIN (adapalene) solution, 0.1%, was not withdrawn for reasons of safety or effectiveness. The petitioner has identified no data or other information suggesting that this product was withdrawn for reasons of safety or effectiveness. We have carefully reviewed our files for records concerning the withdrawal of DIFFERIN (adapalene) solution, 0.1%, from sale. We also have independently evaluated relevant literature and data for possible postmarketing adverse events and have found no information that would indicate that this product was withdrawn from sale for reasons of safety or effectiveness.

Accordingly, the Agency will continue to list DIFFERIN (adapalene) solution, 0.1%, in the ''Discontinued Drug Product List'' section of the Orange Book. The ''Discontinued Drug Product List'' delineates, among other items, drug products that have been discontinued from marketing for reasons other than safety or effectiveness. ANDAs that refer to DIFFERIN (adapalene) solution, 0.1%, may be approved by the Agency as long as they meet all other legal and regulatory requirements for the approval of ANDAs. If FDA determines that labeling for this drug product should be revised to meet current standards, the Agency will advise ANDA applicants to submit such labeling.

Dated: January 24, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02087 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013–N–0035]

Considerations Regarding Food and Drug Administration Review and Regulation of Drugs for the Treatment of Amyotrophic Lateral Sclerosis; Public Hearing

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of public hearing; request for comments.

SUMMARY: The Food and Drug Administration (FDA or the Agency) is announcing a public hearing to obtain input on the Agency's regulation of drugs for the treatment and/or management of amyotrophic lateral sclerosis (ALS). FDA is holding this public hearing to allow patients, caregivers, advocates, health care providers, academia, industry, and other interested persons to give their perspectives on various aspects of the development of drugs for the treatment or management of ALS. The input from this public hearing will help inform the work of FDA offices that review applications for drugs for the treatment of ALS.

DATES: *Public Hearing:* The public hearing will be held on February 25, 2013, from 9 a.m. to 5 p.m. However, depending on the level of public participation, the meeting may be extended or end early.

Presentations and Comments: Submit either electronic or written requests for oral presentations to David Banks or Steve Morin (see **FOR FURTHER INFORMATION CONTACT**) by February 8, 2013. Submit electronic comments to *http://www.regulations.gov* by March 25, 2013. Submit written comments to the Division of Dockets Management (see **ADDRESSES**) by March 25, 2013. Either electronic or written comments will be accepted after the hearing until March 25, 2013.

ADDRESSES: The public hearing will be held at FDA White Oak Campus, 10903 New Hampshire Ave., Bldg. 31, Rm. 1503B, Silver Spring, MD 20993–0002. Additional information on parking and public transportation may be accessed at *http://www.fda.gov/AboutFDA/WorkingatFDA/BuildingsandFacilities/WhiteOakCampusInformation/ucm241740.htm.*

Comments and Transcripts: Submit either electronic or written comments to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852. Submit electronic comments to *http://www.regulations.gov*. Transcripts of the hearing will be available for review at the Division of Dockets Management and on the Internet at *http://www.regulations.gov* approximately 45 days after the hearing.

FOR FURTHER INFORMATION CONTACT: David Banks, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 32, Rm. 5365, Silver Spring, MD 20993–0002, 301–796–8459, Email: *david.banks@fda.hhs.gov*, or Steve Morin, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg 32, Rm. 5343, Silver Spring, MD 20993–0002, 301–796–0161, Email: *steve.morin@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

ALS, sometimes called Lou Gehrig's disease, is a rapidly progressive, invariably fatal neurological disease that attacks the nerve cells (neurons) responsible for controlling voluntary muscles. Messages from motor neurons in the brain (called ''upper motor neurons'') are transmitted to motor neurons in the spinal cord (called ''lower motor neurons'') and from them to particular muscles. In ALS, both the upper motor neurons and the lower motor neurons degenerate or die, ceasing to send messages to muscles. Unable to function, the muscles gradually weaken, waste away (atrophy), and twitch (fasciculations). Eventually, the ability of the brain to start and control voluntary movement is lost.

ALS causes weakness with a wide range of disabilities. Eventually, all muscles under voluntary control are affected, and patients lose their strength and the ability to move their arms, legs, and body. When muscles in the diaphragm and chest wall fail, patients lose the ability to breathe without ventilatory support. Most people with ALS die from respiratory failure, usually within 3 to 5 years from the onset of symptoms. However, about 10 percent of ALS patients survive for 10 or more years.

As many as 20,000 people in the United States have ALS, and an estimated 5,000 people in the United States are diagnosed with the disease each year. People of all races and ethnic backgrounds are affected. ALS most commonly strikes people between 40 and 60 years of age, but younger and older people also can develop the disease.

In 90 to 95 percent of all ALS cases, the disease occurs apparently at random with no clearly associated risk factors. Patients do not have a family history of the disease, and their family members are not considered to be at increased risk for developing ALS.

No cure has yet been found for ALS. However, several years ago FDA approved the first drug treatment for the disease, RILUTEK (riluzole). Clinical trials with ALS patients showed that RILUTEK prolongs survival by several months. Patients taking RILUTEK must be monitored for liver damage and other possible side effects. However, this first disease-specific therapy offers hope that new medications or combinations of drugs may one day slow the progression of ALS.

Profound unmet medical needs remain for patients with ALS. Patients need new treatments to provide symptomatic relief, and to slow, halt, reverse, or prevent ALS. In addition to fulfilling responsibilities to regulate clinical testing and marketing of new treatments for ALS, FDA facilitates the work of researchers and medical product manufacturers by providing expert technical assistance.

The purpose of this meeting is for FDA to hear from stakeholders regarding the needs and preferences of patients, as well as suggestions regarding how best to be responsive to those needs and preferences.

II. Purpose and Scope of the Hearing

FDA is holding this hearing to seek input from ALS patients, caregivers, advocates, academia, health care providers, the pharmaceutical industry, and other interested parties on their experience with, concerns about, and suggestions for, the way FDA regulates the scientific evaluation of, marketing authorization for, and postmarketing surveillance of, drugs for treatment of ALS. The scope of the presentations may include, but are not limited to, nonclinical testing, clinical trials, and decisions regarding marketing authorization and postmarketing surveillance of products for the diagnosis or treatment of this disease.

III. Attendance and/or Participation in the Public Hearing

The public hearing is free and seating will be on a first-come, first-served basis. Attendees who do not wish to make an oral presentation do not need to register. Given the debilitating effects of ALS, FDA will employ all available measures to enable participation of people who are mobility-limited.

If you wish to make an oral presentation during the hearing, you must register by submitting a written or electronic request by close of business on February 8, 2013, to David Banks or Steve Morin (see **FOR FURTHER INFORMATION CONTACT**). You must provide your name, title, business affiliation (if applicable), address, telephone and fax numbers, email address, and type of organization you represent (e.g., industry, consumer organization). You also should submit a brief summary of the presentation, including the discussion topic(s) that will be addressed and the approximate time requested for your presentation. We encourage individuals and organizations with common interests to consolidate or coordinate their presentations to allow adequate time for each request for presentation. Persons registered to make an oral presentation should check in before the hearing.

Participants should submit a copy of each presentation to David Banks or Steve Morin (see **FOR FURTHER INFORMATION CONTACT**). We will file the hearing schedule, indicating the order of presentation and the time allotted to each person, with the Division of Dockets Management (see **ADDRESSES**). We will mail, email, or fax the schedule to each participant before the hearing. Participants are encouraged to arrive early to ensure the designated order of presentation.

If you need special accommodations due to a disability, please contact David Banks or Steve Morin (see **FOR FURTHER INFORMATION CONTACT**) at least 14 days in advance.

IV. Notice of Hearing Under 21 CFR Part 15

The Commissioner of Food and Drugs is announcing that the public hearing will be held in accordance with part 15 (21 CFR part 15). The hearing will be conducted by a presiding officer, accompanied by FDA senior management from the Office of the Commissioner, and the Center for Drug Evaluation and Research.

Under § 15.30(f), the hearing is informal and the rules of evidence do not apply. No participant may interrupt the presentation of another participant. Only the presiding officer and panel members may question any person during or at the conclusion of each presentation (§ 15.30(e)).

Public hearings under part 15 are subject to FDA's policy and procedures for electronic media coverage of FDA's public administrative proceedings (part 10 (21 CFR part 10), subpart C) (§ 10.203(a)). Under § 10.205, representatives of the electronic media may be permitted, subject to certain limitations, to videotape, film, or otherwise record FDA's public administrative proceedings, including presentations by participants.

To the extent that the conditions for the hearing, as described in this document, conflict with any provisions set out in part 15, this notice acts as a waiver of those provisions as specified in § 15.30(h).

V. Request for Comments

Interested persons may submit either electronic comments for consideration to *http://www.regulations.gov* or written comments to the Division of Dockets Management (see **ADDRESSES**). Persons who wish to provide additional materials for consideration should file these materials with the Division of Dockets Management. You should annotate and organize your comments to identify the specific topics to which they refer. It is only necessary to send one set of comments. Identify comments with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

VI. Transcripts

The hearing will be transcribed as stipulated in § 15.30(b). Transcripts of the hearing will be available for review at the Division of Dockets Management (see **ADDRESSES**) and on the Internet at *http://www.regulations.gov* approximately 45 days after the hearing. A transcript will also be available in either hard copy or on a CD–ROM after submission of a Freedom of Information request. Written requests are to be sent to the Division of Freedom of Information (ELEM–1029), Food and Drug Administration, 12420 Parklawn Dr., Element Bldg., Rockville, MD 20857.

Dated: January 24, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02088 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2012–N–1205]

Accessible Medical Device Labeling in a Standard Content and Format Public Workshop; Request for Comments; Correction

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of public workshop; request for comments; correction.

SUMMARY: The Food and Drug Administration (FDA) is correcting a document that appeared in the **Federal Register** of January 7, 2013 (78 FR 951). The document announced a public workshop entitled ''Accessible Standardized Medical Device Labeling.'' The document was published with the incorrect date for submission of presentation materials. This document corrects that error.

FOR FURTHER INFORMATION CONTACT: Mary Weick-Brady, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, rm. 5426, 301–796–6089, FAX: 301–847–8510, email: *Mary.Brady@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

Correction

In the **Federal Register** of January 7, 2013, in FR Doc. 951–953, on page 952, the following correction is made:

Under *Requests for Oral Presentations,* on page 952, in the first column, the sentences that read ''All requests to make oral presentations must be received by the close of registration on April 5, 2013, at 5 p.m. If selected for presentation, any presentation materials must be emailed to Mary Weick-Brady (see **FOR FURTHER INFORMATION CONTACT**) no later than March 29, 2013'' is changed to read ''All requests to make oral presentations must be received by the close of registration on April 5, 2013, at 5 p.m. If selected for presentation, any presentation materials must be emailed to Mary Weick-Brady (see **FOR FURTHER INFORMATION CONTACT**) no later than April 19, 2013.''

Dated: January 25, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02084 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2012–E–0037]

Determination of Regulatory Review Period for Purposes of Patent Extension; XALKORI

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) has determined the regulatory review period for XALKORI and is publishing this notice of that determination as required by law. FDA has made the determination because of the submission of an application to the Director of Patents and Trademarks, Department of Commerce, for the extension of a patent which claims that human drug product.

ADDRESSES: Submit electronic comments to *http://www.regulations.gov.* Submit written petitions along with three copies and written comments to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Beverly Friedman, Office of Regulatory Policy, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 6284, Silver Spring, MD 20993–0002, 301–796–3602.

SUPPLEMENTARY INFORMATION: The Drug Price Competition and Patent Term Restoration Act of 1984 (Pub. L. 98–417) and the Generic Animal Drug and Patent Term Restoration Act (Pub. L. 100–670) generally provide that a patent may be extended for a period of up to 5 years so long as the patented item (human drug product, animal drug product, medical device, food additive, or color additive) was subject to regulatory review by FDA before the item was marketed. Under these acts, a product's regulatory review period forms the basis for determining the amount of extension an applicant may receive.

A regulatory review period consists of two periods of time: A testing phase and an approval phase. For human drug products, the testing phase begins when the exemption to permit the clinical investigations of the drug becomes effective and runs until the approval phase begins. The approval phase starts with the initial submission of an application to market the human drug product and continues until FDA grants permission to market the drug product. Although only a portion of a regulatory review period may count toward the actual amount of extension that the Director of Patents and Trademarks may award (for example, half the testing phase must be subtracted as well as any time that may have occurred before the patent was issued), FDA's determination of the length of a regulatory review period for a human drug product will include all of the testing phase and approval phase as specified in 35 U.S.C. 156(g)(1)(B).

FDA recently approved for marketing the human drug product XALKORI (crizotinib). XALKORI is a kinase inhibitor indicated for the treatment of patients with locally advanced or metastatic non-small cell lung cancer that is anaplastic lymphoma kinase-positive as detected by an FDA-approved test. Subsequent to this approval, the Patent and Trademark Office received a patent term restoration application for XALKORI (U.S. Patent No. 7,230,098) from Pfizer Inc., and the Patent and Trademark Office requested FDA's assistance in determining this patent's eligibility for patent term restoration. In a letter dated July 9, 2012, FDA advised the Patent and Trademark Office that this human drug product had undergone a regulatory review period and that the approval of XALKORI represented the first permitted commercial marketing or use of the product. Thereafter, the Patent and Trademark Office requested that FDA determine the product's regulatory review period.

FDA has determined that the applicable regulatory review period for XALKORI is 2,054 days. Of this time, 1,904 days occurred during the testing phase of the regulatory review period, while 150 days occurred during the approval phase. These periods of time were derived from the following dates:

1. *The date an exemption under section 505(i) of the Federal Food, Drug, and Cosmetic Act (the FD&C Act) (21 U.S.C. 355(i)) became effective:* January 12, 2006. The applicant claims January 21, 2006, as the date the investigational new drug application (IND) became effective. However, FDA records indicate that the IND effective date was January 12, 2006, which was 30 days after FDA receipt of the IND.

2. *The date the application was initially submitted with respect to the human drug product under section 505(b) of the FD&C Act:* March 30, 2011. FDA has verified the applicant's claim that the new drug application (NDA) for XALKORI (NDA 202–570) was submitted on March 30, 2011.

3. *The date the application was approved:* August 26, 2011. FDA has verified the applicant's claim that NDA 202–570 was approved on August 26, 2011.

This determination of the regulatory review period establishes the maximum potential length of a patent extension. However, the U.S. Patent and Trademark Office applies several statutory limitations in its calculations of the actual period for patent extension. In its application for patent extension, this applicant seeks 178 days of patent term extension.

Anyone with knowledge that any of the dates as published are incorrect may submit to the Division of Dockets Management (see **ADDRESSES**) either electronic or written comments and ask for a redetermination by April 1, 2013. Furthermore, any interested person may petition FDA for a determination regarding whether the applicant for extension acted with due diligence during the regulatory review period by July 30, 2013. To meet its burden, the petition must contain sufficient facts to merit an FDA investigation. (See H. Rept. 857, part 1, 98th Cong., 2d sess., pp. 41–42, 1984.) Petitions should be in the format specified in 21 CFR 10.30.

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) electronic or written comments and written petitions. It is only necessary to send one set of comments. However, if you submit a written petition, you must submit three copies of the petition. Identify comments with the docket number found in brackets in the heading of this document. Comments and petitions that have not been made publicly available on *http://www.regulations.gov* may be viewed in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

Dated: January 24, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02085 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2011–E–0277]

Determination of Regulatory Review Period for Purposes of Patent Extension; BEYAZ

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) has determined

the regulatory review period for BEYAZ and is publishing this notice of that determination as required by law. FDA has made the determination because of the submission of an application to the Director of Patents and Trademarks, Department of Commerce, for the extension of a patent which claims that human drug product.

ADDRESSES: Submit electronic comments to *http://www.regulations.gov*. Submit written petitions along with three copies and written comments to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Beverly Friedman, Office of Regulatory Policy, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, rm. 6284, Silver Spring, MD 20993–0002, 301–796–3602.

SUPPLEMENTARY INFORMATION: The Drug Price Competition and Patent Term Restoration Act of 1984 (Pub. L. 98–417) and the Generic Animal Drug and Patent Term Restoration Act (Pub. L. 100–670) generally provide that a patent may be extended for a period of up to 5 years so long as the patented item (human drug product, animal drug product, medical device, food additive, or color additive) was subject to regulatory review by FDA before the item was marketed. Under these acts, a product's regulatory review period forms the basis for determining the amount of extension an applicant may receive.

A regulatory review period consists of two periods of time: A testing phase and an approval phase. For human drug products, the testing phase begins when the exemption to permit the clinical investigations of the drug becomes effective and runs until the approval phase begins. The approval phase starts with the initial submission of an application to market the human drug product and continues until FDA grants permission to market the drug product. Although only a portion of a regulatory review period may count toward the actual amount of extension that the Director of Patents and Trademarks may award (for example, half the testing phase must be subtracted as well as any time that may have occurred before the patent was issued), FDA's determination of the length of a regulatory review period for a human drug product will include all of the testing phase and approval phase as specified in 35 U.S.C. 156(g)(1)(B).

FDA recently approved for marketing the human drug product BEYAZ (drospirenone, ethinyl estradiol, and levomefolate calcium). BEYAZ is indicated for use in women to: Prevent pregnancy; treat symptoms of premenstrual dysphoric disorder for women who choose to use an oral contraceptive for contraception; treat moderate acne for women at least 14 years old only if the patient desires an oral contraceptive for birth control; and raise folate levels in women who choose to use an oral contraceptive for contraception. Subsequent to this approval, the Patent and Trademark Office received a patent term restoration application for BEYAZ (U.S. Patent No. 6,441,168) from Eprova AG, and the Patent and Trademark Office requested FDA's assistance in determining this patent's eligibility for patent term restoration. In a letter dated March 28, 2012, FDA advised the Patent and Trademark Office that this human drug product had undergone a regulatory review period and that the approval of BEYAZ represented the first permitted commercial marketing or use of the product. Thereafter, the Patent and Trademark Office requested that FDA determine the product's regulatory review period.

FDA has determined that the applicable regulatory review period for BEYAZ is 1,271 days. Of this time, 874 days occurred during the testing phase of the regulatory review period, while 397 days occurred during the approval phase. These periods of time were derived from the following dates:

1. *The date an exemption under section 505(i) of the Federal Food, Drug, and Cosmetic Act (the FD&C Act) (21 U.S.C. 355(i)) became effective:* April 4, 2007. FDA has verified the applicant's claim that the date the investigational new drug application became effective was on April 4, 2007.

2. *The date the application was initially submitted with respect to the human drug product under section 505(b) of the FD&C Act:* August 24, 2009. The applicant claims August 21, 2009, as the date the new drug application (NDA) for BEYAZ (NDA 22–532) was initially submitted. However, FDA records indicate that NDA 22–532 was submitted on August 24, 2009.

3. *The date the application was approved:* September 24, 2010. FDA has verified the applicant's claim that NDA 22–532 was approved on September 24, 2010.

This determination of the regulatory review period establishes the maximum potential length of a patent extension. However, the U.S. Patent and Trademark Office applies several statutory limitations in its calculations of the actual period for patent extension. In its application for patent extension, this applicant seeks 834 days of patent term extension.

Anyone with knowledge that any of the dates as published are incorrect may submit to the Division of Dockets Management (see **ADDRESSES**) either electronic or written comments and ask for a redetermination by April 1, 2013. Furthermore, any interested person may petition FDA for a determination regarding whether the applicant for extension acted with due diligence during the regulatory review period by July 30, 2013. To meet its burden, the petition must contain sufficient facts to merit an FDA investigation. (See H. Rept. 857, part 1, 98th Cong., 2d sess., pp. 41–42, 1984.) Petitions should be in the format specified in 21 CFR 10.30.

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) electronic or written comments and written petitions. It is only necessary to send one set of comments. However, if you submit a written petition, you must submit three copies of the petition. Identify comments with the docket number found in brackets in the heading of this document. Comments and petitions that have not been made publicly available on *http://www.regulations.gov* may be viewed in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

Dated: January 24, 2013.

Leslie Kux,

Assistant Commissioner for Policy.

[FR Doc. 2013–02086 Filed 1–30–13; 8:45 am]

BILLING CODE 4160–01–P

DEPARTMENT OF HOMELAND SECURITY

Public Availability of DHS Fiscal Year 2012 Service Contract Inventory

AGENCY: Office of the Chief Procurement Officer, DHS.

ACTION: Notice of availability.

SUMMARY: In accordance with Section 743 of Division C of the Consolidated Appropriations Act of 2010 (Pub. L. 111–117), the Department of Homeland Security (DHS) is publishing this notice to advise the public of the availability of the FY 2012 Service Contract inventory. This inventory provides information on service contract actions over $25,000 that were made in FY 2012. The information is organized by function to show how contracted resources are distributed throughout the agency. The inventory has been developed in accordance with guidance issued on November 5, 2010 and

December 19, 2011 available at *http://www.whitehouse.gov/omb/procurement-service-contract-inventories* by the Office of Management and Budget's Office of Federal Procurement Policy (OFPP). The guidance for preparing and analyzing FY 2012 inventories is unchanged from OFFP's November 5, 2010 and December 19, 2011 guidance for preparing the inventories. DHS has posted its FY 2012 inventory for public review at: *http://www.dhs.gov/xopnbiz/regulations/editorial_0504.shtm* under ''Acquisition Reports and Notices.''

FOR FURTHER INFORMATION CONTACT: For questions about this notice, please contact Gail *Carter at Gail.A.Carter1@dhs.gov,* or telephone 202–447–5302.

Anne Terry,

Acting Chief Procurement Officer.

[FR Doc. 2013–01674 Filed 1–30–13; 8:45 am]

BILLING CODE 9110–9B–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

Accreditation and Approval of AmSpec Services, LLC, as a Commercial Gauger and Laboratory

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of accreditation and approval of AmSpec Services, LLC, as a commercial gauger and laboratory.

SUMMARY: Notice is hereby given, pursuant to CBP regulations, that AmSpec Services, LLC, has been approved to gauge and accredited to test petroleum and petroleum products, organic chemicals and vegetable oils for customs purposes for the next three years as of August 20, 2012.

DATES: *Effective Dates:* The accreditation and approval of AmSpec Services, LLC, as commercial gauger and laboratory became effective on August 20, 2012. The next triennial inspection date will be scheduled for August 2015.

FOR FURTHER INFORMATION CONTACT: Approved Gauger and Accredited Laboratories Manager, Laboratories and Scientific Services, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue NW, Suite 1500N, Washington, DC 20229, tel. 202–344–1060.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to 19 CFR 151.12 and 19 CFR 151.13, AmSpec Services, LLC, 1950 East 220th St, Suite #304, Long Beach, CA 90745, has been approved to gauge and accredited to test petroleum and petroleum products, organic chemicals and vegetable oils for customs purposes, in accordance with the provisions of 19 CFR 151.12 and 19 CFR 151.13. Anyone wishing to employ this entity to conduct laboratory analyses and gauger services should request and receive written assurances from the entity that it is accredited or approved by the U.S. Customs and Border Protection to conduct the specific test or gauger service requested. Alternatively, inquires regarding the specific test or gauger service this entity is accredited or approved to perform may be directed to the U.S. Customs and Border Protection by calling (202) 344–1060. The inquiry may also be sent to *cbp.labhq@dhs.gov.* Please reference the Web site listed below for a complete listing of CBP approved gaugers and accredited laboratories. *http://cbp.gov/linkhandler/cgov/trade/basic_trade/labs_scientific_svcs/commercial_gaugers/gaulist.ctt/gaulist.pdf.*

Dated: January 23, 2013.

Ira S. Reese,

Executive Director, Laboratories and Scientific Services.

[FR Doc. 2013–02122 Filed 1–30–13; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

Accreditation and Approval of King Laboratories, Inc., as a Commercial Gauger and Laboratory

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of accreditation and approval of King Laboratories, Inc., as a commercial gauger and laboratory.

SUMMARY: Notice is hereby given, pursuant to CBP regulation, that King Laboratories, Inc., has been approved to gauge and accredited to test petroleum and petroleum products, organic chemicals and vegetable oils for customs purposes for the next three years as of June 13, 2012.

DATES: *Effective Dates:* The accreditation and approval of King Laboratories, Inc., as commercial gauger and laboratory became effective on June 13, 2012. The next triennial inspection date will be scheduled for June 2015.

FOR FURTHER INFORMATION CONTACT: Approved Gauger and Accredited Laboratories Manager, Laboratories and Scientific Services, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue NW., Suite 1500N, Washington, DC 20229, tel. 202–344–1060.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to 19 CFR 151.12 and 19 CFR 151.13, King Laboratories, Inc., 1300 E. 223rd St. #401, Carson, CA 90745, has been approved to gauge and accredited to test petroleum and petroleum products, organic chemicals and vegetable oils for customs purposes, in accordance with the provisions of 19 CFR 151.12 and 19 CFR 151.13. Anyone wishing to employ this entity to conduct laboratory analyses and gauger services should request and receive written assurances from the entity that it is accredited or approved by the U.S. Customs and Border Protection to conduct the specific test or gauger service requested. Alternatively, inquires regarding the specific test or gauger service this entity is accredited or approved to perform may be directed to the U.S. Customs and Border Protection by calling (202) 344–1060. The inquiry may also be sent to *cbp.labhq@dhs.gov.* Please reference the Web site listed below for a complete listing of CBP approved gaugers and accredited laboratories. *http://cbp.gov/linkhandler/cgov/trade/basic_trade/labs_scientific_svcs/commercial_gaugers/gaulist.ctt/gaulist.pdf.*

Dated: January 23, 2013.

Ira S. Reese,

Executive Director, Laboratories and Scientific Services.

[FR Doc. 2013–02130 Filed 1–30–13; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

Accreditation and Approval of Saybolt LP, as a Commercial Gauger and Laboratory

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of accreditation and approval of Saybolt LP, as a commercial gauger and laboratory.

SUMMARY: Notice is hereby given, pursuant to CBP regulations, that Saybolt LP, has been approved to gauge and accredited to test petroleum and petroleum products, organic chemicals and vegetable oils for customs purposes for the next three years as of September 12, 2012.

DATES: *Effective Dates:* The accreditation and approval of Saybolt LP, as commercial gauger and laboratory became effective on September 12, 2012.

The next triennial inspection date will be scheduled for September 2015.

FOR FURTHER INFORMATION CONTACT: Approved Gauger and Accredited Laboratories Manager, Laboratories and Scientific Services, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue NW, Suite 1500N, Washington, DC 20229, tel. 202–344–1060.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to 19 CFR 151.12 and 19 CFR 151.13, Saybolt LP, 21730 S. Wilmington Ave., Suite 201, Carson, CA 90810, has been approved to gauge and accredited to test petroleum and petroleum products, organic chemicals and vegetable oils for customs purposes, in accordance with the provisions of 19 CFR 151.12 and 19 CFR 151.13. Anyone wishing to employ this entity to conduct laboratory analyses and gauger services should request and receive written assurances from the entity that it is accredited or approved by the U.S. Customs and Border Protection to conduct the specific test or gauger service requested. Alternatively, inquires regarding the specific test or gauger service this entity is accredited or approved to perform may be directed to the U.S. Customs and Border Protection by calling (202) 344–1060. The inquiry may also be sent to *cbp.labhq@dhs.gov.* Please reference the Web site listed below for a complete listing of CBP approved gaugers and accredited laboratories. *http://cbp.gov/linkhandler/cgov/trade/basic_trade/labs_scientific_svcs/commercial_gaugers/gaulist.ctt/gaulist.pdf.*

Dated: January 23, 2013.

Ira S. Reese,

Executive Director, Laboratories and Scientific Services.

[FR Doc. 2013–02129 Filed 1–30–13; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

Approval of AmSpec Services, LLC, as a Commercial Gauger

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of approval of AmSpec Services, LLC, as a commercial gauger.

SUMMARY: Notice is hereby given, pursuant to CBP regulation, that AmSpec Services, LLC, has been approved to gauge petroleum, petroleum products, organic chemicals and vegetable oils for customs purposes for the next three years as of August 7, 2012.

DATES: *Effective Dates:* The approval of AmSpec Services, LLC, as commercial gauger became effective on August 7, 2012. The next triennial inspection date will be scheduled for August 2015.

FOR FURTHER INFORMATION CONTACT: Approved Gauger and Accredited Laboratories Manager, Laboratories and Scientific Services, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue NW., Suite 1500N, Washington, DC 20229, tel. 202–344–1060.

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to 19 CFR 151.13, AmSpec Services, LLC, 2308 East Burton Street, Sulphur, LA 70663, has been approved to gauge petroleum, petroleum products, organic chemicals and vegetable oils for customs purposes, in accordance with the provisions of 19 CFR 151.13. Anyone wishing to employ this entity to conduct gauger services should request and receive written assurances from the entity that it is approved by the U.S. Customs and Border Protection to conduct the specific gauger service requested. Alternatively, inquires regarding the specific gauger service this entity is approved to perform may be directed to the U.S. Customs and Border Protection by calling (202) 344–1060. The inquiry may also be sent to *cbp.labhq@dhs.gov.* Please reference the Web site listed below for a complete listing of CBP approved gaugers and accredited laboratories. *http://cbp.gov/linkhandler/cgov/trade/basic_trade/labs_scientific_svcs/commercial_gaugers/gaulist.ctt/gaulist.pdf*

Dated: January 23, 2013.

Ira S. Reese,

Executive Director, Laboratories and Scientific Services.

[FR Doc. 2013–02126 Filed 1–30–13; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF THE INTERIOR

Geological Survey

[GX13NM000HF1000]

Agency Information Collection Activities: Submitted for Office of Management and Budget (OMB) Review; Comment Request

AGENCY: U.S. Geological Survey (USGS).

ACTION: Notice of an extension of a currently approved information collection, 1028–0094.

SUMMARY: To comply with the Paperwork Reduction Act of 1995 (PRA), we are notifying the public that we have submitted to the Office of Management and Budget (OMB) an information collection request (ICR) for approval of the paperwork requirements for the National Coal Resources Data System (NCRDS) competitive cooperative agreement program. This collection is scheduled to expire on January 31, 2013. This notice provides the public an opportunity to comment on the paperwork burden of this project.

DATES: You must submit comments on or before March 4, 2013.

ADDRESSES: Please submit written comments on this information collection directly to the Office of Management and Budget (OMB) Office of Information and Regulatory Affairs, Attention: Desk Officer for the Department of the Interior via email to *OIRA_SUBMISSION@omb.eop.gov* or fax at 202–395–5806; and identify your submission with Information Collection Number 1028–0094.

Please also submit a copy of your written comments to the USGS Information Collection Clearance Officer, 12201 Sunrise Valley Drive, MS 807, Reston, VA 20192 (mail); (703) 648–7199 (fax); or *smbaloch@usgs.gov* (email). Please reference information collection 1028–0094. NCRDS in the subject line.

FOR FURTHER INFORMATION PLEASE CONTACT: Joseph East by mail at U.S. Geological Survey, National Center, 12201 Sunrise Valley Drive, Reston, VA 20192 or by telephone at 703–648–6450.

SUPPLEMENTARY INFORMATION:

Abstract

The primary objective of the National Coal Resources Data System (NCRDS) is to advance the understanding of the energy endowment of the United States (U.S.) by gathering and organizing digital geologic information related to coal, coal bed gas, shale gas and other energy resources and related information regarding these resources. These data are needed to support regional or national assessments concerning coal, coal bed gas, and other solid fuel occurrences. Requesting external cooperation is the best way for NCRDS to collect energy data and perform research and analyses on the characterization of coals and organic-rich shale, and obtain other information (including geophysical or seismic data, sample collection for generation of thermal maturity data) that can be used in solid-fuel resource assessments and related studies.

The USGS will issue a call for proposals to support researchers from State Geological Surveys and associated

accredited Universities that can provide geologic data to support NCRDS and other energy assessment projects being conducted by the Energy Resources Program.

Data submitted to NCRDS by external cooperators constitute more than two-thirds of the USGS point-source stratigraphic database (USTRAT) on coal occurrence. In 2012, NCRDS supported 30 projects in 23 States. This program is conducted under various authorities, including 30 U.S.C. 208–1, 42 U.S.C. 15801, and 43 U.S.C. 31 et seq. This collection will consist of applications, proposals and reports (annual and final).

I. Data

OMB Control Number: 1028–0094.

Title: Energy Cooperatives to Support the National Coal Resources Data System (NCRDS).

Respondent Obligation: Required to obtain or retain benefits.

Frequency of Collection: One time every 5 years for applications and final reports; annually for progress reports.

Affected Public: Individuals; State, local and tribal governments; State Geological Surveys, universities, and businesses.

Annual burden hours: 300.

Estimated Annual Number of Respondents: 26.

Estimated Annual Number of Responses: 35 (9 applications 26 reports).

Estimated Annual Reporting and Recordkeeping ''Non-Hour Cost'': None.

II. Request for Comments

Public Disclosure Statement: The PRA (44 U.S.C. 3501, *et seq.*) provides that an agency may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

On October 12, 2012, we published a **Federal Register** notice (77 FR 62253) announcing that we would submit this information collection to OMB for approval. The notice provided a 60-day comment period ending on December 10, 2012. We did not receive any comments in response to that notice.

We again invite comments concerning this information collection on: (1) Whether or not the collection of information is necessary, including whether or not the information will have practical utility; (2) the accuracy of our estimate of the burden for this collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents.

Please note that the comments submitted in response to this notice are a matter of public record. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask OMB in your comment to withhold your personal identifying information from public review, we cannot guarantee that it will be done.

Dated: January 23, 2013.

Brenda Pierce,

Program Coordinator, USGS Energy Resources Program.

[FR Doc. 2013–02114 Filed 1–30–13; 8:45 am]

BILLING CODE 4311–AM–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLWO220000.L63100000.PH0000 0113X]

Renewal of Approved Information Collection

AGENCY: Bureau of Land Management, Interior.

ACTION: 60-Day notice and request for comments.

SUMMARY: In compliance with the Paperwork Reduction Act, the Bureau of Land Management (BLM) invites public comments on its proposals to: (1) Request approval to continue the collection of information from persons who seek authorization for free use of mineral or vegetative materials; and (2) Use one form for vegetative materials, and a different form for mineral materials. The Office of Management and Budget (OMB) has assigned control number 1004–0001 to this information collection.

DATES: Please submit comments on the proposed information collection by April 1, 2013.

ADDRESSES: Comments may be submitted by mail, fax, or electronic mail.

Mail: U.S. Department of the Interior, Bureau of Land Management, 1849 C Street NW., Room 2134LM, Attention: Jean Sonneman, Washington, DC 20240.

Fax: to Jean Sonneman at 202–245–0050.

Electronic mail: *Jean_Sonneman@blm.gov.*

Please indicate ''Attn: 1004–0001'' regardless of the form of your comments.

FOR FURTHER INFORMATION CONTACT: Mike Bechdolt, at 202–912–7234 (vegetative materials); or George Brown, at 202–912–7118 (mineral materials) Persons who use a telecommunication device for the deaf may call the Federal Information Relay Service at 1–800–877–8339, to leave a message for Mr. Bechdolt or Mr. Brown.

SUPPLEMENTARY INFORMATION: OMB regulations at 5 CFR 1320, which implement provisions of the Paperwork Reduction Act, 44 U.S.C. 3501–3521, require that interested members of the public and affected agencies be given an opportunity to comment on information collection and recordkeeping activities (see 5 CFR 1320.8 (d) and 1320.12(a)). This notice identifies an information collection that the BLM plans to submit to OMB for approval. The Paperwork Reduction Act provides that an agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. Until OMB approves a collection of information, you are not obligated to respond.

The BLM will request a 3-year term of approval for this information collection activity. Comments are invited on: (1) The need for the collection of information for the performance of the functions of the agency; (2) The accuracy of the agency's burden estimates; (3) Ways to enhance the quality, utility and clarity of the information collection; and (4) Ways to minimize the information collection burden on respondents, such as use of automated means of collection of the information. A summary of the public comments will accompany our submission of the information collection requests to OMB.

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

The following information is provided for the information collection:

Title: Free Use Application and Permit for Vegetative or Mineral Materials (43 CFR Parts 3600, 3620, and 5510).

OMB Control Number: 1004–0001.

Summary: The Bureau of Land Management (BLM) collects information from respondents for free use permits for vegetative or mineral materials in

order to: (1) Determine whether the applicant is eligible for free use, (2) Determine whether the vegetative or mineral materials at issue qualify for free use; (3) Determine whether free use is consistent with pertinent land use plans and authorities; and; (4) Monitor the authorized removal and uses of vegetative and mineral materials to ensure sustainable resource management and verify that the actual use is consistent with the authorization. At present, the BLM uses the same form for free use of both vegetative and mineral materials. In this request, the BLM seeks approval to use one form for vegetative materials, and a different form for mineral materials.

Frequency of Collection On occasion.

Proposed Forms:

• Form 3604–1, Free Use Application and Permit For Mineral Materials; and

• Form 5510–1, Free Use Application and Permit for Vegetative Materials.

Description of Respondents: Individuals seeking authorization for free use of mineral or vegetative materials.

Estimated Annual Responses:

• 160 mineral materials applications; and

• 250 vegetative material applications.

Estimated Annual Burden Hours:

• 120 burden hours for mineral materials; and

• 125 burden hours for vegetative materials.

Estimated Annual Non-Hour Costs: None.

The estimated annual burdens of this collection are itemized below:

A. Type of response	B. Number of responses	C. Hours per response	D. Total hours (Column B × Column C)
Form 5510–1, Free Use Application and Permit For Vegetative Materials	250	0.50	125
Form 3604–1, Free Use Application and Permit For Mineral Materials	160	0.75	120
Totals	410	.....	245

Jean Sonneman,

Information Collection Clearance Officer, Bureau of Land Management.

[FR Doc. 2013–02102 Filed 1–30–13; 8:45 am]

BILLING CODE 4310–84–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLWO320000 L13300000.PP0000 12X]

Renewal of Approved Information Collection

AGENCY: Bureau of Land Management, Interior.

ACTION: 30-day notice and request for comments.

SUMMARY: The Bureau of Land Management (BLM) has submitted an information collection request to the Office of Management and Budget (OMB) to continue the collection of information regarding leases of solid minerals other than coal and oil shale. The Office of Management and Budget (OMB) previously approved this information collection activity, and assigned it control number 1004–0121.

DATES: The OMB is required to respond to this information collection request within 60 days but may respond after 30 days. For maximum consideration, written comments should be received on or before March 4, 2013.

ADDRESSES: Please submit comments directly to the Desk Officer for the Department of the Interior (OMB #1004–0121), Office of Management and Budget, Office of Information and Regulatory Affairs, fax 202–395–5806, or by electronic mail at OIRA_*submission@omb.eop.gov.* Please provide a copy of your comments to the BLM. You may do so via mail, fax, or electronic mail.

Mail: U.S. Department of the Interior, Bureau of Land Management, 1849 C Street NW., Room 2134LM, Attention: Jean Sonneman, Washington, DC 20240.

Fax: to Jean Sonneman at 202–245–0050.

Electronic mail: *Jean_Sonneman@blm.gov.*

Please indicate ''Attn: 1004–0121'' regardless of the form of your comments.

FOR FURTHER INFORMATION CONTACT: Vince Vogt, at 202–912–7125. Persons who use a telecommunication device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339, to leave a message for Mr. Vogt. You may also review the information collection request online at *http://www.reginfo.gov/public/do/PRAMain.*

SUPPLEMENTARY INFORMATION: The Paperwork Reduction Act (44 U.S.C. 3501–3521) and OMB regulations at 5 CFR part 1320 provide that an agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. Until OMB approves a collection of information, you are not obligated to respond. In order to obtain and renew an OMB control number, Federal agencies are required to seek public comment on information collection and recordkeeping activities (see 5 CFR 1320.8(d) and 1320.12(a)).

As required at 5 CFR 1320.8(d), the BLM published a 60-day notice in the **Federal Register** on September 27, 2012 (77 FR 59415), and the comment period ended November 26, 2012. The BLM received one comment in response to this from the public in response to this notice. The comment neither addressed, nor was germane to, this information collection. Therefore, the BLM has not changed the collection in response to the comment.

The BLM now requests comments on the following subjects:

1. Whether the collection of information is necessary for the proper functioning of the BLM, including whether the information will have practical utility;

2. The accuracy of the BLM's estimate of the burden of collecting the information, including the validity of the methodology and assumptions used;

3. The quality, utility and clarity of the information to be collected; and

4. How to minimize the information collection burden on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other forms of information technology.

Please send comments as directed under **ADDRESSES** and **DATES**. Please refer to OMB control number 1004–0121 in your correspondence. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

The following information is provided for the information collection:

Title: Leasing of Solid Minerals Other Than Coal and Oil Shale (43 CFR Parts 3500, 3580, and 3590).

OMB Control Number: 1004–0121.

Abstract: This control number enables the BLM to fulfill its responsibilities regarding prospecting permits, exploration licenses, leases, the exchange of leases, use permits, and the regulation of mining activities for solid minerals other than coal or oil shale. The information activities currently approved under control number 1004–0121 include requirements that an applicant, a permittee or a lessee submit information that enables the BLM to:

- Determine if applicants, permittees, and lessees meet qualification criteria;
- Assure compliance with various other legal requirements relating to the leasing of solid minerals other than coal or oil shale;
- Gather data needed to determine the environmental impacts of developing solid leasable minerals other than coal or oil shale;
- Maintain accurate leasing records; and
- Oversee and manage the leasing of solid minerals other than coal or oil shale.

Frequency of Collection: On occasion.

Description of Respondents: Applicants for, and holders of, the following items in connection with solid minerals other than coal or oil shale:

- Prospecting permits;
- Exploration licenses;
- Leases; and
- Use permits.

Estimated Annual Responses: 473.

Estimated Annual Burden Hours: 16,346.

Estimated Reporting and Recordkeeping ''Non-Hour Cost'' Burden Annually: $562,915 in fixed and case-by-case document processing fees.

Jean Sonneman,

Information Collection Clearance Officer, Bureau of Land Management.

[FR Doc. 2013–02101 Filed 1–30–13; 8:45 am]

BILLING CODE 4310–84–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLUT980500 L10200000 XH0000 LXSIOVHD0000]

Notice of Mailing Address Change for the Utah State Office, Salt Lake City, UT

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The mailing address for the Bureau of Land Management (BLM), Utah State Office, in Salt Lake City, Utah, will be changing from P.O. Box 45155–0155 to 440 West 200 South, Suite 500, Salt Lake City, Utah 84101–1345. The proposed date will be on or about February 1, 2013. The office location address remains the same.

FOR FURTHER INFORMATION CONTACT: Nancy Allen, Business Manager, Support Services, at (801) 539–4244, BLM Utah State Office, Salt Lake City, Utah 84101.

Jenna Whitlock,

Associate State Director.

[FR Doc. 2013–02099 Filed 1–30–13; 8:45 am]

BILLING CODE 4310–DQ–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLOR912000.L63200000.DF0000.13 XL1116AF; HAG–13–0062]

Call for Nominations for the John Day-Snake Resource Advisory Council, Oregon/Washington

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The Secretary of the Interior requests public nominations for persons to serve on the Bureau of Land Management's (BLM) Oregon/Washington John Day-Snake Resource Advisory Council (RAC). Citizens who serve on this council will provide advice and recommendations to the BLM on land use planning and management of the National System of Public Lands within their geographic areas and management options for National Landscape Conservation System sites like the Spring Basin and Badlands Wilderness Areas as well as the Lower Deschutes and John Day Wild and Scenic Rivers. The BLM will accept public nominations for 15 days after the publication of this notice.

DATES: Submit nomination packages on or before February 15, 2013.

ADDRESSES: BLM Oregon State Office; 333 SW. 1st Avenue, Portland, OR 97204. Nomination forms are also available at the BLM Prineville and Vale District Offices.

FOR FURTHER INFORMATION CONTACT: Jeff Clark, BLM Oregon State Office, 333 SW. 1st Avenue; Portland, OR 97204, or P.O. Box 2965, Portland, OR 97208; 503–808–6028 or *jeffclark@blm.gov*.

Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 to contact the above individual during normal business hours. The FIRS is available 24 hours a day, 7 days a week, to leave a message or question with the above individual. You will receive a reply during normal business hours.

SUPPLEMENTARY INFORMATION: The Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1739) directs the Secretary of the Interior (Secretary) to involve the public in planning and issues related to management of lands administered by the BLM. Section 309 of FLPMA directs the Secretary to establish citizen-based advisory councils that are consistent with the Federal Advisory Committee Act (FACA). As required by FACA, council membership must be balanced and representative of the various interests concerned with the management of public lands. The rules governing advisory committees are found at 43 CFR subpart 1784.

The John Day-Snake RAC seeks nominations to fill one vacancy in one category: Category Three—Representatives of State, county, or local elected office; representatives and employees of a State agency responsible for the management of natural resources; representatives of Indian tribes within or adjacent to the area for which the RAC is organized; representatives and employees of academic institutions who are involved in natural sciences; and the public-at-large.

The BLM will evaluate nominees based on their education, training, experience, and knowledge of the geographical area of the council. Nominees should demonstrate a commitment to collaborative resource decision-making. The Obama Administration prohibits individuals who are currently federally registered lobbyists to serve on all FACA and non-FACA boards, committees, or councils. All nominations must include:

(1) Letters of reference from a stakeholder in the interest area to be represented; (2) A completed background information nomination form; and (3) Other information that addresses the nominee's qualifications, subject to appropriate background investigations. The BLM Oregon State Office will issue press releases providing additional information for submitting nominations. Nominations should be sent to: Jeff Clark, BLM Oregon State Office, 333 SW. 1st Avenue, Portland, OR 97204.

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Certification Statement: I hereby certify that the BLM Advisory Councils are necessary and in the public interest in connection with the Secretary's responsibilities to manage the lands, resources, and facilities administered by the BLM.

Andrew M. Smith,

Acting Associate State Director, Oregon/Washington.

[FR Doc. 2013–02103 Filed 1–30–13; 8:45 am]

BILLING CODE 4310–33–P

DEPARTMENT OF THE INTERIOR

Bureau of Reclamation

Final Environmental Impact Statement/Environmental Impact Report for the San Joaquin River Exchange Contractors Water Authority's 25-Year Water Transfer Program, 2014–2038, San Joaquin Valley, CA

AGENCY: Bureau of Reclamation, Interior.

ACTION: Notice of availability.

SUMMARY: The Bureau of Reclamation and the San Joaquin River Exchange Contractors Water Authority have prepared a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for a 25-Year Water Transfer Program, 2014–2038. The proposed new program would provide for the transfer and/or exchange of up to 150,000 acre-feet of substitute water from the San Joaquin River Exchange Contractors Water Authority to several potential users over a 25-year timeframe (water service years 2014–2038).

A Notice of Availability of the joint Draft EIS/EIR was published in the **Federal Register** on Friday, May 4, 2012 (77 FR 26578). The written comment period on the Draft EIS/EIR ended Tuesday, July 3, 2012. The Final EIS/EIR contains responses to all comments received and reflects comments and additional information received during the review period.

DATES: The Bureau of Reclamation will not make a decision on the proposed action until at least 30 days after release of the Final EIS/EIR. After the 30-day waiting period, Reclamation will complete a Record of Decision (ROD). The ROD will state the action that will be implemented and will discuss all factors leading to the decision.

ADDRESSES: To request a compact disc of the Final EIS/EIR, please contact Mr. Brad Hubbard, Bureau of Reclamation, 2800 Cottage Way, Room 2905, Sacramento, California 95825; telephone, 916–978–5034; or email *bhubbard@usbr.gov.* The Final EIS/EIR may be viewed at the Bureau of Reclamation's Web site at *http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=9086.* See **SUPPLEMENTARY INFORMATION** section for locations where copies of the Final EIS/EIR are available for public inspection.

FOR FURTHER INFORMATION CONTACT: Mr. Brad Hubbard, Natural Resources Specialist, at 916–978–5204, or email at *bhubbard@usbr.gov;* or Ms. Joann White, San Joaquin River Exchange Contractors Water Authority, at 209–827–8616, or email at *jwhite@sjrecwa.net.*

SUPPLEMENTARY INFORMATION: The San Joaquin River Exchange Contractors Water Authority (Exchange Contractors) proposes to make up to 150,000 acre-feet of water available via tailwater recovery, water conservation, and temporary land fallowing for transfer and/or exchange of substitute water to either the state and Federal wildlife refuges, Central Valley Project (CVP) contractors for existing municipal and industrial (M&I) and/or agricultural areas, and other potential State Water Project (SWP) contractors for agricultural and/or M&I uses, or to some combination of these users. The Bureau of Reclamation (Reclamation), Mid-Pacific Region; CVP and SWP contractors; and the Exchange Contractors would execute agreements for water transfers for water service years 2014 to 2038. A similar 10-year program ends February 28, 2014.

The water transfers would occur largely within the San Joaquin Valley of central California but could extend to districts taking water deliveries in the east San Francisco Bay Area. The Exchange Contractors' service area covers parts of Fresno, Madera, Merced, and Stanislaus counties. The agricultural water users that would benefit from the potential transfers are located in the counties of Stanislaus, San Joaquin, Merced, Madera, Fresno, San Benito, Santa Clara, Tulare, Kern, Kings, Contra Costa, Alameda, Monterey, and Santa Cruz counties. The wetland habitat areas that may receive water are located in Merced, Fresno, Kings, Tulare, and Kern counties.

One public hearing was held on June 13, 2012 in Los Banos, California.

Copies of the Final EIS/EIR are available for public inspection and review at the following locations:

- Bureau of Reclamation, Regional Library, 2800 Cottage Way, Sacramento, CA 95825–1898
- California State Library, 914 Capitol Mall, Suite E–29, Sacramento, CA 95814–4802
- University of California, Berkeley, Water Resources Center Archives, 410 O'Brien Hall, Berkeley, CA 94720–1718
- University of California, Davis, Peter J. Shields Library, Documents Department, 100 Northwest Quad, Davis, CA 95616–5292
- California Research Bureau, California State Library, PO Box 942837, Sacramento, CA 94237–0001
- Fresno County Public Library, Government Publications, 2420 Mariposa Street Fresno, CA 93721–2204
- Merced County Library, 2100 O Street, Merced, CA 95340–3637
- Merced County Public Library, 1312 South 7th Street, Los Banos, CA 93635–4757
- Stanislaus County Library, 1500 I Street, Modesto, CA 95354
- San Francisco Public Library, Government Documents Department, 100 Larkin Street, San Francisco, CA 94102

Public Disclosure

Before including your address, phone number, email address, or other personal identifying information in any communication, you should be aware that your entire communication—including your personal identifying information—may be made publicly available at any time. While you can ask us in your communication to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Dated: *January 25, 2013.*

Michelle Denning,

Acting Regional Director, Mid-Pacific Region.

[FR Doc. 2013–02076 Filed 1–30–13; 8:45 am]

BILLING CODE 4310–MN–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731–TA–747 (Third Review)]

Fresh Tomatoes From Mexico; Revised Schedule for the Subject Review

AGENCY: United States International Trade Commission.

ACTION: Notice.

DATES: *Effective Date:* January 23, 2013.

FOR FURTHER INFORMATION CONTACT: Elizabeth Haines (202–205–3200), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

SUPPLEMENTARY INFORMATION: On December 3, 2012, the Commission established a schedule for the institution of a five-year review concerning the suspended antidumping duty investigation on fresh tomatoes from Mexico (77 FR 71629, December 3, 2012). On December 4, 2012, the Department of Commerce extended the deadline for domestic interested parties to file a notice of intent to participate in the sunset review from December 18, 2012 to January 17, 2013. The deadline for the substantive responses was extended from January 2, 2013, to February 1, 2013. In light of the Department of Commerce's decision to extend by 30 days the deadlines for interested parties to file notice of intent to participate and substantive responses to its notice of institution in its review of fresh tomatoes from Mexico, as well as Mexican Respondents' December 5, 2012, request that the Commission extend its deadline for interested parties to respond to the Commission's Notice of Institution by 30 days, the Commission determined, on December 12, 2012, to extend the deadline for interested party responses to its Notice of Institution by 30 days from January 2, 2013 to February 1, 2013. Subsequently, on January 7, 2013, Commerce further extended the deadline for domestic interested parties to file a notice of intent to participate in the sunset review, and the deadline for substantive responses to March 1, 2013. In light of the Department of Commerce's January 7, 2013, decision to extend by the deadlines for interested parties to file notice of intent to participate and substantive responses to its notice of institution in its review of fresh tomatoes from Mexico, as well as Mexican Respondents' January 11, 2013, request that the Commission extend its deadline for interested parties to respond to the Commission's Notice of Institution, the Commission has extended the deadline for interested party responses to its Notice of Institution to March 15, 2013, and comments on the adequacy of responses may be filed with the Commission by April 30, 2013.

For further information concerning the conduct of this review and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A, D, E, and F (19 CFR part 207), as most recently amended at 74 FR 2847 (January 16, 2009).

Authority: This review is being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.21 of the Commission's rules.

By order of the Commission.

Issued: January 25, 2013.

Lisa R. Barton,

Acting Secretary to the Commission.

[FR Doc. 2013–02060 Filed 1–30–13; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–867]

Certain Cases for Portable Electronic Devices; Institution of Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that a complaint was filed with the U.S. International Trade Commission on December 26, 2012, under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, on behalf of Speculative Product Design, LLC of Mountain View, California. The complaint alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain cases for portable electronic devices by reason of infringement of U.S. Patent No. 8,204,561 (''the '561 patent''). The complaint further alleges that an industry in the United States exists as required by subsection (a)(2) of section 337.

The complainant requests that the Commission institute an investigation and, after the investigation, issue an exclusion order and cease and desist orders.

ADDRESSES: The complaint, except for any confidential information contained therein, is available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Room 112, Washington, DC 20436, telephone (202) 205–2000. Hearing impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205–2000. General information concerning the Commission may also be obtained by accessing its internet server at *http://www.usitc.gov.* The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

FOR FURTHER INFORMATION CONTACT: The Office of Unfair Import Investigations, U.S. International Trade Commission, telephone (202) 205–2560.

Authority: The authority for institution of this investigation is contained in section 337 of the Tariff Act of 1930, as amended, and in section 210.10 of the Commission's Rules of Practice and Procedure, 19 CFR 210.10 (2012).

Scope of Investigation: Having considered the complaint, the U.S. International Trade Commission, on January 24, 2013, *ordered that*—

(1) Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, an investigation be instituted to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain cases for portable electronic devices by reason of infringement of one or more of claims 1–16 of the '561 patent, and whether an industry in the United States exists as required by subsection (a)(2) of section 337;

(2) For the purpose of the investigation so instituted, the following are hereby named as parties upon which this notice of investigation shall be served:

(a) The complainant is: Speculative Product Design, LLC, 303 Bryant Street, Mountain View, CA 94041.

(b) The respondents are the following entities alleged to be in violation of section 337, and are the parties upon which the complaint is to be served:

En Jinn Industrial Co. Ltd., No. 5 Wu Chan 3rd Rd., Wu Ku Industrial Zone, New Taipei City, Taiwan.

Shengda Huanqiu Shijie, North Kao Ku Digital Building, 1st Floor, Futian District, Shenzhen Huaqianq, C051, Shenzhen, China.

Global Digital Star Industry, Ltd., 22F, Hong Ling Building, Hong Ling South Road, Futian District, Shenzhen City 518112, China.

JWIN Electronics Corp., dba iLuv, 2 Harbor Park Drive, Port Washington, NY 11050.

Project Horizon, Inc., dba InMotion Entertainment, 4801 Executive Park Court, Suite 100, Jacksonville, FL 32216.

Superior Communications, Inc., dba PureGear, 5027 Irwindale Avenue, Suite 900, Irwindale, CA 91706.

Jie Sheng Technology, No. 2, Lane 92, Chen Nan 1 St., Tainan City 710, Taiwan.

(c) The Office of Unfair Import Investigations, U.S. International Trade Commission, 500 E Street SW., Suite 401, Washington, DC 20436; and

(3) This investigation is consolidated with Investigation No. 337–TA–861, currently pending before the Honorable Thomas B. Pender, Administrative Law Judge, U.S. International Trade Commission; and

(4) For the consolidated investigation so instituted, the Honorable Charles E. Bullock, Chief Administrative Law Judge, U.S. International Trade Commission, shall designate the presiding Administrative Law Judge, who may adjust the target date and procedural schedule of the consolidated investigation as necessary to avoid prejudice to the rights of the parties.

Responses to the complaint and the notice of investigation must be submitted by the named respondents in accordance with section 210.13 of the Commission's Rules of Practice and Procedure, 19 CFR 210.13. Pursuant to 19 CFR 201.16(d)–(e) and 210.13(a), such responses will be considered by the Commission if received not later than 20 days after the date of service by the Commission of the complaint and the notice of investigation. Extensions of time for submitting responses to the complaint and the notice of investigation will not be granted unless good cause therefor is shown.

Failure of a respondent to file a timely response to each allegation in the complaint and in this notice may be deemed to constitute a waiver of the right to appear and contest the allegations of the complaint and this notice, and to authorize the administrative law judge and the Commission, without further notice to the respondent, to find the facts to be as alleged in the complaint and this notice and to enter an initial determination and a final determination containing such findings, and may result in the issuance of an exclusion order or a cease and desist order or both directed against the respondent.

Issued: January 25, 2013.

By order of the Commission.

Lisa R. Barton,

Acting Secretary to the Commission.

[FR Doc. 2013–02066 Filed 1–30–13; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–864]

Certain Mobile Handset Devices and Related Touch Keyboard Software; Institution of Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that a complaint was filed with the U.S. International Trade Commission on December 20, 2012, under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, on behalf of Nuance Communications, Inc. of Burlington, Massachusetts. An amended complaint was filed on January 11, 2013 on behalf of Nuance Communications, Inc.; Swype, Inc.; Tegic Communications, Inc.; and ZI Corporation, all of Burlington, Massachusetts. A supplement to the amended complaint was filed on January 16, 2013. The amended complaint alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain mobile handset devices and related touch keyboard software by reason of infringement of certain claims of U.S. Patent No. 7,750,891 (''the '891 patent''); U.S. Patent No. 7,453,439 (''the '439 patent''); U.S. Patent No. 7,098,896 (''the '896 patent''); U.S. Patent No. 7,075,520 (''the '520 patent''); and U.S. Patent No. 6,286,064 (''the '064 patent''). The amended complaint further alleges that an industry in the United States exists as required by subsection (a)(2) of section 337.

The complainants request that the Commission institute an investigation and, after the investigation, issue an exclusion order and cease and desist orders.

ADDRESSES: The amended complaint, except for any confidential information contained therein, is available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Room 112, Washington, DC 20436, telephone (202) 205–2000. Hearing impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205–2000. General information concerning the Commission may also be obtained by accessing its internet server at *http://www.usitc.gov*. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

FOR FURTHER INFORMATION CONTACT: The Office of Unfair Import Investigations, U.S. International Trade Commission, telephone (202) 205–2560.

Authority: The authority for institution of this investigation is contained in section 337 of the Tariff Act of 1930, as amended, and in section 210.10 of the Commission's Rules of Practice and Procedure, 19 CFR 210.10 (2012).

Scope of Investigation: Having considered the amended complaint, the U.S. International Trade Commission, on January 24, 2013, *ordered that*—

(1) Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, an investigation be instituted to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain mobile handset devices and related touch keyboard software that infringe one or more of claims 36, 47, 50–52, and 55–57 of the '891 patent; claims 1–7 and 12–55 of the '439 patent; claims 1–3, 5–12, 17, and 19–51 of the '896 patent; claims 1, 8, 9, 12–16, and 19–21 of the '520 patent; and claims 1–4, 22–24, and 26 of the '064 patent, and whether an industry in the United States exists as required by subsection (a)(2) of section 337;

(2) For the purpose of the investigation so instituted, the following are hereby named as parties upon which

this notice of investigation shall be served:

(a) The complainants are:

Nuance Communications, Inc., 1 Wayside Road, Burlington, Massachusetts 01803;

Swype, Inc., 1 Wayside Road, Burlington, Massachusetts 01803;

Tegic Communications, Inc., 1 Wayside Road, Burlington, Massachusetts 01803;

ZI Corporation of Canada, Inc., 1 Wayside Road, Burlington, Massachusetts 01803.

(b) The respondents are the following entities alleged to be in violation of section 337, and are the parties upon which the amended complaint is to be served:

Shanghai HanXiang (CooTek) Information, Technology Co., Ltd., 1023, Bldg. 2, 555 Dongchuan Rd. Shanghai, Shanghai 200241 China;

Personal Communications Devices, LLC, 555 Wireless Boulevard, Hauppauge, NY 11788.

(c) The Office of Unfair Import Investigations, U.S. International Trade Commission, 500 E Street SW., Suite 401, Washington, DC 20436; and

(3) For the investigation so instituted, the Chief Administrative Law Judge, U.S. International Trade Commission, shall designate the presiding Administrative Law Judge.

Responses to the amended complaint and the notice of investigation must be submitted by the named respondents in accordance with section 210.13 of the Commission's Rules of Practice and Procedure, 19 CFR 210.13. Pursuant to 19 CFR 201.16(d)–(e) and 210.13(a), such responses will be considered by the Commission if received not later than 20 days after the date of service by the Commission of the amended complaint and the notice of investigation. Extensions of time for submitting responses to the amended complaint and the notice of investigation will not be granted unless good cause therefore is shown.

Failure of a respondent to file a timely response to each allegation in the amended complaint and in this notice may be deemed to constitute a waiver of the right to appear and contest the allegations of the amended complaint and this notice, and to authorize the administrative law judge and the Commission, without further notice to the respondent, to find the facts to be as alleged in the amended complaint and this notice and to enter an initial determination and a final determination containing such findings, and may result in the issuance of an exclusion order or a cease and desist order or both directed against the respondent.

By order of the Commission.

Issued: January 25, 2013.

Lisa R. Barton,

Acting Secretary to the Commission.

[FR Doc. 2013–02061 Filed 1–30–13; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–823]

Certain Kinesiotherapy Devices and Components Thereof; Notice of Request for Statements on the Public Interest

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the presiding administrative law judge has issued a Final Initial Determination and Recommended Determination on Remedy and Bond in the above-captioned investigation. The Commission is soliciting comments on public interest issues raised by the recommended relief, specifically a general exclusion order.

FOR FURTHER INFORMATION CONTACT: Lisa R. Barton, Acting Secretary to the Commission, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436, telephone (202) 205–2000. The public version of the complaint can be accessed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov,* and will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436, telephone (202) 205–2000.

General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.* Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810.

SUPPLEMENTARY INFORMATION: Section 337 of the Tariff Act of 1930 provides that if the Commission finds a violation it shall exclude the articles concerned from the United States:

unless, after considering the effect of such exclusion upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry.

19 U.S.C. 1337(d)(1).

The Commission is interested in further development of the record on the public interest in these investigations. Accordingly, members of the public are invited to file submissions of no more than five (5) pages, inclusive of attachments, concerning the public interest in light of the administrative law judge's Recommended Determination on Remedy and Bond issued in this investigation on January 22, 2013. Although the administrative law judge's final initial determination did not find a violation of section 337, he issued a Recommended Determination on Remedy and Bond should the Commission find a violation of section 337.

Comments should address whether issuance of an exclusion order in this investigation would affect the public health and welfare in the United States, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, or United States consumers.

In particular, the Commission is interested in comments that:

(i) Explain how the articles potentially subject to the recommended orders are used in the United States;

(ii) Identify any public health, safety, or welfare concerns in the United States relating to the recommended order;

(iii) Identify like or directly competitive articles that complainant, its licensees, or third parties make in the United States which could replace the subject articles if they were to be excluded;

(iv) Indicate whether complainant, complainant's licensees, and/or third party suppliers have the capacity to replace the volume of articles potentially subject to the recommended exclusion order within a commercially reasonable time; and

(v) Explain how the exclusion order would impact consumers in the United States.

Written submissions must be filed no later than by close of business on February 28, 2012.

Persons filing written submissions must file the original document electronically on or before the deadline stated above and submit 8 true paper copies to the Office of the Secretary by noon the next day pursuant to section 210.4(f) of the Commission's Rules of Practice and Procedure (19 CFR

210.4(f)). Submissions should refer to the investigation number (''Inv. No. 337–TA–823'') in a prominent place on the cover page and/or the first page. (*See Handbook for Electronic Filing Procedures, http://www.usitc.gov/secretary/fed_reg_notices/rules/handbook_on_electronic_filing.pdf*). Persons with questions regarding filing should contact the Secretary (202–205–2000).

Any person desiring to submit a document to the Commission in confidence must request confidential treatment. All such requests should be directed to the Secretary to the Commission and must include a full statement of the reasons why the Commission should grant such treatment. *See* 19 CFR 201.6. Documents for which confidential treatment by the Commission is properly sought will be treated accordingly. A redacted non-confidential version of the document must also be filed simultaneously with the any confidential filing. All non-confidential written submissions will be available for public inspection at the Office of the Secretary and on EDIS.

This action is taken under the authority of section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and of sections 201.10 and 210.50 of the Commission's Rules of Practice and Procedure (19 CFR 201.10, 210.50).

Issued: January 25, 2013.

By order of the Commission.

Lisa R. Barton,

Acting Secretary to the Commission.

[FR Doc. 2013–02059 Filed 1–30–13; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–866]

Certain Wireless Communications Equipment and Articles Therein; Institution of Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that a complaint was filed with the U.S. International Trade Commission on December 21, 2012, under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, on behalf of Samsung Electronics Co., Ltd., Seoul, Republic of Korea and Samsung Telecommunications America, LLC of Richardson, Texas. A letter supplementing the complaint was filed on January 10, 2013. The complaint alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain wireless communications equipment and articles therein by reason of infringement of U.S. Patent No. 7,782,749 (''the '749 patent''); U.S. Patent No. 8,165,081 (''the '081 patent''); U.S. Patent No. 8,208,438 (''the '438 patent''); U.S. Patent No. 8,228,827 (''the '827 patent''); U.S. Patent No. 6,617,929 (''the '929 patent''); U.S. Patent No. 6,767,813 (''the '813 patent''); U.S. Patent No. 6,865,682 (''the '682 patent''). The complaint further alleges that an industry in the United States exists or is in the process of being established as required by subsection (a)(2) of section 337.

The complainants request that the Commission institute an investigation and, after the investigation, issue an exclusion order and cease and desist orders.

ADDRESSES: The complaint, except for any confidential information contained therein, is available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Room 112, Washington, DC 20436, telephone (202) 205–2000. Hearing impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205–2000. General information concerning the Commission may also be obtained by accessing its internet server at *http://www.usitc.gov*. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*.

FOR FURTHER INFORMATION CONTACT: The Office of Unfair Import Investigations, U.S. International Trade Commission, telephone (202) 205–2560.

Authority: The authority for institution of this investigation is contained in section 337 of the Tariff Act of 1930, as amended, and in section 210.10 of the Commission's Rules of Practice and Procedure, 19 CFR 210.10 (2012).

Scope of Investigation: Having considered the complaint, the U.S. International Trade Commission, on January 24, 2013, *ordered that*—

(1) Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, an investigation be instituted to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain wireless communications equipment and articles therein by reason of infringement of one or more of claims 1–13 of the '749 patent; claims 1, 4, 9, and 12 of the '081 patent; claims 1–14 of the '438 patent; claims 1–8 of the '827 patent; claims 1–8 of the '929 patent; claims 1–3, 5–12, and 14–23 of the '813 patent; and claims 1, 2, 4, and 8 of the '682 patent, and whether an industry in the United States exists or is in the process of being established as required by subsection (a)(2) of section 337;

(2) Pursuant to Commission Rule 210.50(b)(1), 19 CFR 210.50(b)(1), the presiding administrative law judge shall take evidence or other information and hear arguments from the parties and other interested persons with respect to the public interest in this investigation, as appropriate, and provide the Commission with findings of fact and a recommended determination on this issue, which shall be limited to the statutory public interest factors, 19 U.S.C. 1337(d)(1), (f)(1), (g)(1);

(3) For the purpose of the investigation so instituted, the following are hereby named as parties upon which this notice of investigation shall be served:

(a) The complainants are:

Samsung Electronics Co., Ltd., Samsung Main Building, 250, Taepyung-ro 2-ka, Chung-ku, Seoul 100–742, Republic of Korea.

Samsung Telecommunications America, LLC, 1301 East Lookout Drive, Richardson, TX 75082.

(b) The respondents are the following entities alleged to be in violation of section 337, and are the parties upon which the complaint is to be served:

Ericsson Inc., 6300 Legacy Drive, Plano, TX 75024.

Telefonaktiebolaget LM Ericsson, Torshamnsgatan 23, Kista, Stockholm, Sweden 164 83.

(c) The Office of Unfair Import Investigations, U.S. International Trade Commission, 500 E Street SW., Suite 401, Washington, DC 20436; and

(4) For the investigation so instituted, the Chief Administrative Law Judge, U.S. International Trade Commission, shall designate the presiding Administrative Law Judge.

Responses to the complaint and the notice of investigation must be submitted by the named respondents in accordance with section 210.13 of the Commission's Rules of Practice and Procedure, 19 CFR 210.13. Pursuant to 19 CFR 201.16(d)–(e) and 210.13(a),

such responses will be considered by the Commission if received not later than 20 days after the date of service by the Commission of the complaint and the notice of investigation. Extensions of time for submitting responses to the complaint and the notice of investigation will not be granted unless good cause therefore is shown.

Failure of a respondent to file a timely response to each allegation in the complaint and in this notice may be deemed to constitute a waiver of the right to appear and contest the allegations of the complaint and this notice, and to authorize the administrative law judge and the Commission, without further notice to the respondent, to find the facts to be as alleged in the complaint and this notice and to enter an initial determination and a final determination containing such findings, and may result in the issuance of an exclusion order or a cease and desist order or both directed against the respondent.

By order of the Commission.

Issued: January 25, 2013.

Lisa R. Barton,

Acting Secretary to the Commission.

[FR Doc. 2013–02065 Filed 1–30–13; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–865]

Certain Balloon Dissection Devices and Products Containing Same; Institution of Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that a complaint was filed with the U.S. International Trade Commission on December 21, 2012, under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, on behalf of Covidien LP of Mansfield, Massachusetts. The complaint alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain dissection balloons and products containing the same by reason of infringement of certain claims of U.S. Patent No. 6,312,442 (''the '442 patent''). The complaint further alleges that an industry in the United States exists as required by subsection (a)(3) of section 337.

The complainant requests that the Commission institute an investigation and, after the investigation, issue an exclusion order and cease and desist orders.

ADDRESSES: The complaint, except for any confidential information contained therein, is available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Room 112, Washington, DC 20436, telephone (202) 205–2000. Hearing impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205–2000. General information concerning the Commission may also be obtained by accessing its Internet server at *http://www.usitc.gov.* The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

FOR FURTHER INFORMATION CONTACT: The Office of Unfair Import Investigations, U.S. International Trade Commission, telephone (202) 205–2560.

Authority: The authority for institution of this investigation is contained in section 337 of the Tariff Act of 1930, as amended, and in section 210.10 of the Commission's Rules of Practice and Procedure, 19 CFR 210.10 (2012).

Scope of Investigation: Having considered the complaint, the U.S. International Trade Commission, on January 24, 2013, *ordered that*—

(1) Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, an investigation be instituted to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain dissection balloons and products containing the same that infringe one or more of claims 3, 6, 8, and 10 of the '442 patent, and whether an industry in the United States exists as required by subsection (a)(3) of section 337;

(2) For the purpose of the investigation so instituted, the following are hereby named as parties upon which this notice of investigation shall be served:

(a) The Complainant is: Covidien, LP, 15 Hampshire Street, Mansfield, MA 02048 USA, Tel: (508) 261–8000.

(b) The respondents are the following entities alleged to be in violation of section 337, and are the parties upon which the complaint is to be served:

Pajunk Medizintechnik GmbH, Karl-Hall-Str. 1, D–78187 Geisingen, Germany;

Pajunk Medizintechnologie GmbH, Karl-Hall-Str. 1, D–78187 Geisingen, Germany;

Pajunk Medical Systems L.P., 6611 Bay Circle, Norcross, GA 30071.

(c) The Office of Unfair Import Investigations, U.S. International Trade Commission, 500 E Street SW., Suite 401, Washington, DC 20436; and

(3) For the investigation so instituted, the Chief Administrative Law Judge, U.S. International Trade Commission, shall designate the presiding Administrative Law Judge.

Responses to the complaint and the notice of investigation must be submitted by the named respondents in accordance with section 210.13 of the Commission's Rules of Practice and Procedure, 19 CFR 210.13. Pursuant to 19 CFR 201.16(d)–(e) and 210.13(a), such responses will be considered by the Commission if received not later than 20 days after the date of service by the Commission of the complaint and the notice of investigation. Extensions of time for submitting responses to the complaint and the notice of investigation will not be granted unless good cause therefore is shown.

Failure of a respondent to file a timely response to each allegation in the complaint and in this notice may be deemed to constitute a waiver of the right to appear and contest the allegations of the complaint and this notice, and to authorize the administrative law judge and the Commission, without further notice to the respondents, to find the facts to be as alleged in the complaint and this notice and to enter an initial determination and a final determination containing such findings, and may result in the issuance of an exclusion order or a cease and desist order, or both, directed against the respondents.

By order of the Commission.

Issued: January 25, 2013.

Lisa R. Barton,

Acting Secretary to the Commission.

[FR Doc. 2013–02063 Filed 1–30–13; 8:45 am]

BILLING CODE 7020–02–P

NUCLEAR REGULATORY COMMISSION

[Docket Nos.: 50–269, 50–270, and 50–287; NRC–2013–0016]

Duke Energy Carolinas, LLC, Oconee Nuclear Station, Units 1, 2, and 3 Denial of Amendment to Facility Operating License

AGENCY: Nuclear Regulatory Commission.

ACTION: Denial; opportunity to request a hearing and leave to intervene.

DATES: A request for a hearing must be filed by March 4, 2013. Any potential party as defined in section 2.4 of Title 10 of the *Code of Federal Regulations* (10 CFR), who believes access to Sensitive Unclassified Non-Safeguards Information (SUNSI) is necessary to respond to this notice must request document access by February 11, 2013.

ADDRESSES: Please refer to Docket ID NRC–2013–0016, when contacting the NRC about the availability of information regarding this document. You may access information related to this document, which the NRC possesses and are publicly available, using any of the following methods:

- *Federal Rulemaking Web site:* Go to *http://www.regulations.gov* and search for Docket ID NRC–2013–0016. Address questions about NRC dockets to Carol Gallagher; telephone: 301–492–3668; email: *Carol.Gallagher@nrc.gov.*
- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may access publicly available documents online in the NRC Library at *http://www.nrc.gov/reading-rm/adams.html.* To begin the search, select ''ADAMS Public Documents'' and then select ''*Begin Web-based ADAMS Search.*'' For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1–800–397–4209, 301–415–4737, or by email to *pdr.resource@nrc.gov.* The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced. The application for amendment, dated July 31, 2012, contains security-related information and, accordingly, those portions are being withheld from public disclosure. A redacted version of the application for amendment, dated July 31, 2012, is available in ADAMS under Accession No. ML12262A372. A supplement to the application for amendment, dated September 5, 2012, is available in ADAMS under Accession No. ML12251A010. The NRC's denial safety evaluation, dated January 15, 2013, is also available under ADAMS Accession No. ML12345A204.
- *NRC's PDR:* You may examine and purchase copies of public documents at the NRC's PDR, Room O1–F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

SUPPLEMENTARY INFORMATION:

I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) has denied a request by Duke Energy Carolinas, LLC, (licensee) for an amendment to Renewed Facility Operating Licenses DPR–38, DPR–47, and DPR–55 issued to the licensee for operation of the Oconee Nuclear Station (ONS), Units 1, 2, and 3, located in South Carolina, Oconee County. A Notice of Consideration of Issuance of this amendment was published in the **Federal Register** on October 9, 2012 (77 FR 61436).

The purpose of the licensee's amendment request was to revise the licenses to extend the required dates to meet certain conditions associated with the transition of the plant's fire protection program from a deterministic program under 10 CFR 50.48(b) to a performance-based program under 10 CFR 50.48(c), in accordance with National Fire Protection Association (NFPA) Standard NFPA–805, ''Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants.''

The NRC staff has concluded that the licensee's request cannot be granted. The licensee was notified of the Commission's denial of the proposed change by a letter dated January 15, 2013.

II. Opportunity To Request a Hearing; Petition for Leave To Intervene

By 30 days from the date of publication of this notice in the **Federal Register**, the licensee may demand a hearing with respect to the denial described above. Any demand for a hearing must be filed in accordance with the Commission's ''Rules of Practice For Domestic Licensing Proceedings'' in 10 CFR Part 2, including the requirements of 10 CFR 2.309. Within 30 days from the date of publication of this notice in the **Federal Register**, any person whose interest may be affected by this proceeding may file a written petition for leave to intervene and a request for a hearing pursuant to the requirements of 10 CFR 2.309. The NRC regulations are accessible electronically from the NRC Library on the NRC's public Web site at *http://www.nrc.gov/reading-rm/doc-collections/cfr/.*

III. Electronic Submissions (E-Filing)

All documents filed in the NRC adjudicatory proceedings, including a request for hearing, a petition for leave to intervene, any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities participating under 10 CFR 2.315(c), must be filed in accordance with the NRC E-Filing rule (72 FR 49139; August 28, 2007). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by email at *hearing.docket@nrc.gov,* or by telephone at 301–415–1677, to request (1) a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a request or petition for hearing (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public Web site at *http://www.nrc.gov/site-help/e-submittals/apply-certificates.html.* System requirements for accessing the E-Submittal server are detailed in the NRC's ''Guidance for Electronic Submission,'' which is available on the NRC's public Web site at *http://www.nrc.gov/site-help/e-submittals.html.* Participants may attempt to use other software not listed on the Web site, but should note that the NRC's E-Filing system does not support unlisted software, and the NRC Meta System Help Desk will not be able to offer assistance in using unlisted software.

If a participant is electronically submitting a document to the NRC in accordance with the E-Filing rule, the

participant must file the document using the NRC's online, Web-based submission form. In order to serve documents through the Electronic Information Exchange System, users will be required to install a Web browser plug-in from the NRC's Web site. Further information on the Web-based submission form, including the installation of the Web browser plug-in, is available on the NRC's public Web site at *http://www.nrc.gov/site-help/e-submittals.html.*

Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit a request for hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with NRC guidance available on the NRC's public Web site at *http://www.nrc.gov/site-help/e-submittals.html.* A filing is considered complete at the time the documents are submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an email notice confirming receipt of the document. The E-Filing system also distributes an email notice that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the documents on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC Meta System Help Desk through the ''Contact Us'' link located on the NRC's public Web site at *http://www.nrc.gov/site-help/e-submittals.html,* by email to *MSHD.Resource@nrc.gov,* or by a toll-free call to 1–866–672–7640. The NRC Meta System Help Desk is available between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have a good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) First class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, Attention: Rulemaking and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket which is available to the public at *http://ehd1.nrc.gov/ehd/,* unless excluded pursuant to an order of the Commission, or the presiding officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

Petitions for leave to intervene must be filed no later than 30 days from January 31, 2013. Requests for hearing, petitions for leave to intervene, and motions for leave to file new or amended contentions that are filed after the 30-day deadline will not be entertained absent a determination by the presiding officer that the filing demonstrates good cause by satisfying the following three factors in 10 CFR 2.309(c)(1): (i) The information upon which the filing is based was not previously available; (ii) the information upon which the filing is based is materially different from information previously available; and (iii) the filing has been submitted in a timely fashion based on the availability of the subsequent information.

For further details with respect to this action, see (1) the application for amendment dated July 31, 2012, and supplemented on September 5, 2012, and (2) the Commission's letter to the licensee dated January 15, 2013.

Attorney for licensee: Lara S. Nichols, Deputy General Counsel, Duke Energy Corporation, 526 South Church Street—EC07H, Charlotte, NC 28202–1802.

IV. Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information for Contention Preparation

A. This Order contains instructions regarding how potential parties to this proceeding may request access to documents containing Sensitive Unclassified Non-Safeguards Information (SUNSI).

B. Within 10 days after publication of this notice of hearing and opportunity to petition for leave to intervene, any potential party who believes access to SUNSI is necessary to respond to this notice may request such access. A ''potential party'' is any person who intends to participate as a party by demonstrating standing and filing an admissible contention under 10 CFR 2.309. Requests for access to SUNSI submitted later than 10 days after publication will not be considered absent a showing of good cause for the late filing, addressing why the request could not have been filed earlier.

C. The requestor shall submit a letter requesting permission to access SUNSI to the Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, Attention: Rulemakings and Adjudications Staff, and provide a copy to the Associate General Counsel for Hearings, Enforcement and Administration, Office of the General Counsel, Washington, DC 20555–0001. The expedited delivery or courier mail address for both offices is: U.S. Nuclear Regulatory Commission, 11555 Rockville Pike, Rockville, Maryland 20852. The email address for the Office of the Secretary and the Office of the General Counsel are *Hearing.Docket@nrc.gov* and *OGCmailcenter@nrc.gov,* respectively.[1] The request must include the following information:

(1) A description of the licensing action with a citation to this **Federal Register** notice;

[1] While a request for hearing or petition to intervene in this proceeding must comply with the filing requirements of the NRC's ''E-Filing Rule,'' the initial request to access SUNSI under these procedures should be submitted as described in this paragraph.

(2) The name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the action identified in C.(1); and

(3) The identity of the individual or entity requesting access to SUNSI and the requestor's basis for the need for the information in order to meaningfully participate in this adjudicatory proceeding. In particular, the request must explain why publicly available versions of the information requested would not be sufficient to provide the basis and specificity for a proffered contention.

D. Based on an evaluation of the information submitted under paragraph C.(3) the NRC staff will determine within 10 days of receipt of the request whether:

(1) There is a reasonable basis to believe the petitioner is likely to establish standing to participate in this NRC proceeding; and

(2) The requestor has established a legitimate need for access to SUNSI.

E. If the NRC staff determines that the requestor satisfies both D.(1) and D.(2) above, the NRC staff will notify the requestor in writing that access to SUNSI has been granted. The written notification will contain instructions on how the requestor may obtain copies of the requested documents, and any other conditions that may apply to access to those documents. These conditions may include, but are not limited to, the signing of a Non-Disclosure Agreement or Affidavit, or Protective Order [2] setting forth terms and conditions to prevent the unauthorized or inadvertent disclosure of SUNSI by each individual who will be granted access to SUNSI.

F. Filing of Contentions. Any contentions in these proceedings that are based upon the information received as a result of the request made for SUNSI must be filed by the requestor no later than 25 days after the requestor is granted access to that information. However, if more than 25 days remain between the date the petitioner is granted access to the information and the deadline for filing all other contentions (as established in the notice of hearing or opportunity for hearing), the petitioner may file its SUNSI contentions by that later deadline.

G. Review of Denials of Access.

(1) If the request for access to SUNSI is denied by the NRC staff after a determination on standing and need for access, the NRC staff shall immediately notify the requestor in writing, briefly stating the reason or reasons for the denial.

(2) The requestor may challenge the NRC staff's adverse determination by filing a challenge within 5 days of receipt of that determination with: (a) The presiding officer designated in this proceeding; (b) if no presiding officer has been appointed, the Chief Administrative Judge, or if he or she is unavailable, another administrative judge, or an administrative law judge with jurisdiction pursuant to 10 CFR 2.318(a); or (c) if another officer has been designated to rule on information access issues, with that officer.

H. Review of Grants of Access. A party other than the requestor may challenge an NRC staff determination granting access to SUNSI whose release would harm that party's interest independent of the proceeding. Such a challenge must be filed with the Chief Administrative Judge within 5 days of the notification by the NRC staff of its grant of access.

If challenges to the NRC staff determinations are filed, these procedures give way to the normal process for litigating disputes concerning access to information. The availability of interlocutory review by the Commission of orders ruling on such NRC staff determinations (whether granting or denying access) is governed by 10 CFR 2.311.[3]

I. The Commission expects that the NRC staff and presiding officers (and any other reviewing officers) will consider and resolve requests for access to SUNSI, and motions for protective orders, in a timely fashion in order to minimize any unnecessary delays in identifying those petitioners who have standing and who have propounded contentions meeting the specificity and basis requirements in 10 CFR part 2. Attachment 1 to this Order summarizes the general target schedule for processing and resolving requests under these procedures.

It is so ordered.

Dated at Rockville, Maryland, this 25th day of January 2013.

For the Nuclear Regulatory Commission.

Kenneth R. Hart,

Acting Secretary of the Commission.

ATTACHMENT 1—General Target Schedule for Processing and Resolving Requests for Access to Sensitive Unclassified Non-Safeguards Information in This Proceeding

Day	Event/Activity
0	Publication of **Federal Register** notice of hearing and opportunity to petition for leave to intervene, including order with instructions for access requests.
10	Deadline for submitting requests for access to Sensitive Unclassified Non-Safeguards Information (SUNSI) with information: supporting the standing of a potential party identified by name and address; describing the need for the information in order for the potential party to participate meaningfully in an adjudicatory proceeding.
60	Deadline for submitting petition for intervention containing: (i) Demonstration of standing; (ii) all contentions whose formulation does not require access to SUNSI (+25 Answers to petition for intervention; +7 requestor/petitioner reply).
20	Nuclear Regulatory Commission (NRC) staff informs the requestor of the staff's determination whether the request for access provides a reasonable basis to believe standing can be established and shows need for SUNSI. (NRC staff also informs any party to the proceeding whose interest independent of the proceeding would be harmed by the release of the information.) If NRC staff makes the finding of need for SUNSI and likelihood of standing, NRC staff begins document processing (preparation of redactions or review of redacted documents).
25	If NRC staff finds no ''need'' or no likelihood of standing, the deadline for requestor/petitioner to file a motion seeking a ruling to reverse the NRC staff's denial of access; NRC staff files copy of access determination with the presiding officer (or Chief Administrative Judge or other designated officer, as appropriate). If NRC staff finds ''need'' for SUNSI, the deadline for any party to the proceeding whose interest independent of the proceeding would be harmed by the release of the information to file a motion seeking a ruling to reverse the NRC staff's grant of access.
30	Deadline for NRC staff reply to motions to reverse NRC staff determination(s).

[2] Any motion for Protective Order or draft Non-Disclosure Affidavit or Agreement for SUNSI must be filed with the presiding officer or the Chief Administrative Judge if the presiding officer has not yet been designated, within 30 days of the deadline for the receipt of the written access request.

[3] Requestors should note that the filing requirements of the NRC's E-Filing Rule (72 FR 49139; August 28, 2007) apply to appeals of NRC staff determinations (because they must be served on a presiding officer or the Commission, as applicable), but not to the initial SUNSI request submitted to the NRC staff under these procedures.

Day	Event/Activity
40	(Receipt +30) If NRC staff finds standing and need for SUNSI, deadline for NRC staff to complete information processing and file motion for Protective Order and draft Non-Disclosure Affidavit. Deadline for applicant/licensee to file Non-Disclosure Agreement for SUNSI.
A	If access granted: Issuance of presiding officer or other designated officer decision on motion for protective order for access to sensitive information (including schedule for providing access and submission of contentions) or decision reversing a final adverse determination by the NRC staff.

[FR Doc. 2013–02098 Filed 1–30–13; 8:45 am]

BILLING CODE 7590–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–68735; File No. SR–NASDAQ–2012–119]

Self-Regulatory Organizations; The NASDAQ Stock Market LLC; Order Approving a Proposed Rule Change To Establish a New Optional Wireless Connectivity for Colocated Clients

January 25, 2013.

On October 10, 2012, The NASDAQ Stock Market LLC (''Exchange'' or ''NASDAQ'') filed with the Securities and Exchange Commission (''Commission''), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'')[1] and Rule 19b–4 thereunder,[2] a proposed rule change to establish a new optional wireless connectivity for colocated clients. The proposed rule change was published for comment in the **Federal Register** on October 29, 2012.[3] The Commission received one comment on the proposal and a response from NASDAQ.[4] On December 12, 2012, the Commission extended the time period in which to either approve NASDAQ's proposal, disapprove NASDAQ's proposal, or institute proceedings to determine whether to approve or disapprove NASDAQ's proposal, to January 25, 2013.[5] This order approves the proposed rule change.

II. Description of the Proposal

Under the proposal, NASDAQ would establish fees for new optional means for clients to receive third party market data and NASDAQ TotalView ITCH market data. NASDAQ would offer wireless connectivity for colocated clients in NASDAQ's Carteret data center to receive Direct Edge, BATS, NYSE, and NYSE ARCA multi-cast market data feeds. It also would offer remote multi-cast ITCH Wave Ports for clients colocated at other third party data centers, through which NASDAQ TotalView ITCH market data will be distributed after delivery to those data centers via wireless network. As noted by the Exchange, wireless connectivity involves the beaming of signals through the air between towers that are within sight of one another. Over the last year, wireless technology has been introduced in the financial services industry, according to the Exchange.

Additionally, the proposed rule change would amend NASDAQ Rule 7034 to establish fees for the delivery of third party market data to market center clients via a wireless network using millimeter wave or microwave technology. It also would amend NASDAQ Rule 7015 to establish fees for remote multi-cast ITCH Wave Ports for clients colocated at other third-party data centers, through which NASDAQ TotalView ITCH market data will be distributed after delivery to those data centers via wireless network.

Wireless Connectivity in Carteret

Under the proposed rule change, NASDAQ would utilize a network vendor to supply wireless connectivity from its Carteret data center to the Secaucus Equinix data center (NY4) used by Direct Edge and other exchanges; the Newark data center used by NYSE as a SFTI Network Point of Presence; and the Weehawken Savvis data center (NJ2) used by BATS. The vendor would install, test and maintain the necessary communication equipment for this wireless network between the data centers.

Clients who choose this optional service would have their NASDAQ cross connect handoffs (1G, 10G, or 40G) enabled to receive the chosen raw, multicast market data for Direct Edge, BATS, and/or NYSE. NASDAQ OMX would continue to act as re-distributor of these third party market data feeds, capturing the data at the originating data centers and transporting the data to the Carteret data center. In the Notice, the Exchange represented that it is offering these particular equity feeds because they are the feeds requested by clients. There is limited bandwidth available on the wireless connection, and the Exchange has opted to offer those that are in most demand to start. Additional feeds may be added based on overall client demand and bandwidth availability.

The wireless connectivity would be an optional offering, an alternative to fiber optic network connectivity, and according to the Exchange, would provide lower latency. It would not provide a new market data product, but merely an alternative means of connectivity. The Exchange has represented that NASDAQ's wireless connectivity offering, in conjunction with NASDAQ's equidistant cross connect handoffs (1G, 10G, or 40G), would ensure that all clients colocated within Carteret and electing to use this wireless connectivity offering would receive the chosen market data at the same low latency, equalizing any variances that might otherwise result from differences in the location of client cabinets within the facility.

To obtain wireless connectivity, clients would be charged a $2,500 installation fee (a non-recurring charge) and a monthly recurring charge (MRC) that will vary depending upon the feed. The MRC for the NYSE multi-cast equities data feed, which includes NYSE ArcaBook Highspeed and NYSE OpenBook (Aggregated or Ultra), will be $10,000; the MRC for BATS Multicast PITCH, which includes BZX and BYX, will be $7,500; and the MRC for Direct Edge Depth of Book multi-cast feed, which includes EDGA and EDGX, will be $7,500. According to the Exchange, the rates are higher for the NYSE feeds because the two feeds are larger and take up more bandwidth than the BATS and Direct Edge feeds.

Clients would place orders for the wireless connectivity via the CoLo Console[6] and would be subject to a one-year minimum lock-in period. In the Notice, the Exchange represented that

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] Securities Exchange Act Release No. 68085 (October 23, 2012), 77 FR 65596 (''Notice'').

[4] *See* comment from Anthony C.J. Nuland, Attorney at Law, representing Quincy Data LLC, dated January 17, 2013 (''Quincy Data Letter''); *see also* letter from Jeff Davis, Vice President and Deputy General Counsel, NASDAQ, to Elizabeth M. Murphy, Secretary, Commission, dated January 24, 2013 (''NASDAQ Letter'').

[5] *See* Securities Exchange Act Release No. 68416 (December 12, 2012), 77 FR 75229 (December 19, 2012).

[6] The ''CoLo Console'' is a web-based ordering tool NASDAQ offers to enable members to place colocation orders.

the lock-in feature, which is common practice for colocation offerings, would ensure that the Exchange can recoup the substantial investment required to establish the wireless system. As an incentive to clients, NASDAQ would waive the first month's MRC. Clients would continue to be charged by NYSE, BATS and Direct Edge for the market data received, and NASDAQ would continue to be charged the redistribution fees by the other exchanges, as occurs today. No changes in these charges would occur as a result of this proposed offering.

In the Notice, the Exchange represented that NASDAQ OMX would perform substantial network testing prior to offering the service for a fee to members. After this ''beta'' testing period, upon initial roll-out of the service, clients would be offered the service for a fee, and on a rolling basis, the Exchange would enable new clients to receive the feed(s) for a minimum of 30 days before incurring any monthly recurring fees. The wireless network would continue to be closely monitored and the client informed of any issues. Similar to receiving market data over fiber optic networks, the wireless network can encounter delays or outages due to equipment issues, as noted by the Exchange in the Notice. As wireless networks may be affected by severe weather events, clients would be expected to have redundant methods to receive this market data and would be asked by the Exchange to attest to having alternate methods or establishing an alternate method in the near future when they order this service from the Exchange.

This new data feed delivery option would be available to all clients of the data center, and is in response to industry demand, as well as to changes in the technology for distributing market data. Clients opting not to pay for the wireless connectivity would still be able to receive market data via fiber optics and standard telecommunications connections, as they do currently, and under the same fees. According to the Exchange, receipt of trade data via wireless technology is completely optional. In addition, clients can choose to receive market data via other third-party vendors (Extranets or Telecommunication vendors) via fiber optic networks or wireless networks. They can receive the wireless service, according to the Exchange, by contracting with a wireless service provider to install the required dishes on towers near the data centers and paying the service provider to maintain the service.

Remote Multi-Cast ITCH (MITCH) Wave Ports

Pursuant to the proposed rule change, NASDAQ also would offer remote multi-cast ITCH Wave Ports for clients colocated at other third-party data centers. NASDAQ TotalView ITCH market data would be delivered to NASDAQ–owned cabinets at those data centers via a wireless network. Clients would have the option of cross-connecting to the MITCH Wave Ports in those data centers to receive the raw NASDAQ multi-cast data feed, TotalView ITCH. An installation charge for the remote port would be, at each of the locations, $2,500 for installation, and $7,500 as a monthly recurring fee. According to the Exchange, this offering, which is entirely optional, would enable delivery of NASDAQ TotalView ITCH to the third-party data centers at the same low latency.[7] Clients opting to pay for the remote MITCH Wave Ports would continue to be fee liable for the applicable market data fees as described in NASDAQ Rule 7026, NASDAQ Rule 7019 and NASDAQ Rule 7023.

In the Notice, the Exchange represented that the proposed fees are based on the cost to NASDAQ of installing and maintaining the wireless connectivity and on the value provided to the customer, which receives low latency delivery of data feeds. According to the Exchange, the costs associated with the wireless connectivity system are incrementally higher than fiber optics-based solutions due to the expense of the wireless equipment, cost of installation, and testing. Furthermore, the Exchange represented that the fees allow NASDAQ to make a profit, and reflect the premium received by the clients in terms of lower latency over the fiber optics option. In the Notice, the Exchange also stated that the fees for colocation services generally, including those proposed for wireless connectivity, are constrained by the robust competition for order flow among exchanges and non-exchange markets, and colocation exists to advance that competition.

[7] In the Notice, NASDAQ noted that it cannot preclude minor latency variances in delivery of NASDAQ TotalView in the third-party data centers to individual clients because it does not control the cross-connects in those centers; however, the microwave connectivity would provide the same latency to all MITCH Wave Ports clients and according to the Exchange, offers an improvement in latency over fiber optic network connectivity.

III. Discussion and Commission's Findings

After careful review, the Commission finds that the proposed rule change is consistent with the requirements of Section 6 of the Act[8] and the rules and regulations thereunder applicable to a national securities exchange. Additionally, in approving this proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation, as discussed in more detail below.[9] The Commission finds that the proposed rule change is consistent with Section 6(b)(4),[10] which provides for the equitable allocation of reasonable dues, fees and other charges among members, and Section 6(b)(5) of the Act,[11] which requires, among other things, that the Exchange's rules be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest; and are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers. In addition, the Commission finds that the proposed rule change is consistent with Section 6(b)(8) of the Act,[12] which requires that the rules of the exchange not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The Commission believes that the Exchange's proposal to provide this additional connectivity option is consistent with the requirement of Section 6(b)(5) of the Act. The Commission believes that the proposal is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers because the Exchange makes wireless connectivity available to clients of the data center on an equal basis. The Exchange represented that it will perform substantial network testing prior to offering the service for a fee to members and that after the testing period the network will be closely monitored and maintained by the vendor and clients will be informed of any issues. As wireless networks may be affected by severe weather events, the Exchange notes that clients will be expected to

[8] 15 U.S.C. 78f.

[9] *See* 15 U.S.C. 78c(f).

[10] 15 U.S.C. 78f(b)(4).

[11] 15 U.S.C. 78f(b)(5).

[12] 15 U.S.C. 78f(b)(8).

have redundant methods to receive this market data and will be asked to attest to having alternate methods or establishing an alternate method in the near future when they order this service from the Exchange.

The Commission also finds that consistent with Section 6(b)(8) of the Act the proposed rule change does not impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The Quincy Data Letter argues that NASDAQ's proposal is ''an anti-competitive arrangement'' because ''Nasdaq would be the only wireless provider permitted to install microwave dishes on the rooftop'' of its data center.[13] The Quincy Data Letter states that this rooftop access is a ''critical ingredient'' for an alternative wireless network to be competitive.[14] Ultimately, argues the Quincy Data Letter, by preventing other wireless networks from accessing the roof of the data center, NASDAQ reduces competition with its own wireless network and is able to charge fees for its service that ''are not grounded in competition.'' [15] This arrangement would result in ''vertical tying,'' according to the Quincy Data Letter, as customers desiring the lowest latency for data would have to obtain the service from NASDAQ.[16]

NASDAQ makes a variety of representations in the Notice and in the NASDAQ Letter that respond to the concerns raised by the Quincy Data Letter. The NASDAQ Letter responds by noting that its proposed rule change ''does not unduly constrain competition, nor impede a free and open market and national market system.'' [17] First, NASDAQ notes that it does not have exclusive control of the roof rights at its data center. Verizon, the lessor of the facility, retains rights to the roof that would permit it to approve other vendors to place equipment on the roof of the facility for the provision of wireless network services.

Second, in the Notice, NASDAQ states that it has chosen not to sell roof rights to individual clients as it ''would quickly result in a lack of physical space on the data center roof to accommodate all clients fairly and equally.'' [18] The NASDAQ Letter states further that ''practical issues—space constraints and interference between dishes that are placed too closely together—impose limits to the number of networks that can occupy the Carteret rooftop'' and that it is ''technologically impossible for the rooftop to support equipment from every provider that NASDAQ anticipates would seek rooftop access.'' [19]

Third, even if NASDAQ were to operate the only wireless network on the data center roof, the Exchange notes that its wiraeless network service would still be subject to competition from (1) other wireless network providers and (2) fiber optic networks. NASDAQ responds that roof access is not a prerequisite for creating a competitive network, noting that a variety of factors are at play in determining the speed of a wireless network. Ultimately, NASDAQ avers that competitive wireless networks can be established on buildings across the street from the data center providing ''the same or similar data, at the same or similar speed, at the same or similar cost.'' [20] The NASDAQ Letter also notes that fiber optic networks are also ''effective competitors for wireless data,'' highlighting that (1) 17 market data vendors currently offer connectivity to NASDAQ, and (2) fiber optic networks may be more attractive to some clients as they are ''more resilient than wireless networks, which can be more susceptible to weather affects.'' [21] For these reasons, the Commission does not believe that the proposed rule change imposes a burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The Commission also believes that the proposed fees for wireless connectivity to NASDAQ are consistent with Section 6(b)(4) of the Act. The Commission believes that the proposed fees are reasonable and equitably allocated. All Exchange members that voluntarily select this service option will be charged the same amount for the same services. The Exchange noted that they are based on the Exchange's costs to cover hardware, installation, testing and connection, as well expenses involved in maintaining and managing the enhanced connection.[22] The Commission notes that, according to the Exchange, the proposed fees would allow the Exchange to recoup these costs and make a profit, while providing customers with additional data connectivity options for receiving data from certain third parties and NASDAQ. With respect to the fee differentials for receiving NYSE data feeds versus BATS and Direct Edge data feeds, the Exchange noted that the fees are higher for the NYSE feeds because the two feeds are larger and take up more bandwidth than the BATS and Direct Edge feeds.[23]

The Quincy Data Letter argues that NASDAQ is able to charge fees for the wireless distribution of market data that are ''not grounded in competition,'' suggesting that these fees may not be consistent with the Exchange Act.[24] As described above, NASDAQ has provided a variety of examples of how it believes its wireless network service could be subject to competition. The Exchange also stated that the fees for colocation services generally, including those proposed for wireless connectivity, are constrained by the robust competition for order flow among exchanges and non-exchange markets, and colocation exists to advance that competition.[25] For these reasons, the Commission believes that the proposed fees for wireless connectivity are consistent with Section 6(b)(4) of the Act.

The Commission also believes that the proposed wireless connectivity fees are consistent with Section 6(b)(5) of the Act. All market participants that voluntarily select this service option will be charged the same amount for the same services. Under the proposal, all colocated clients would have the option to select wireless connectivity, and there would be no differentiation among customers with regard to the fees charged for the service.

IV. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[26] that the proposed rule change (SR–NASDAQ–2012–119) be, and it hereby is, approved.

[13] *See* Quincy Data Letter, *supra* note 4, at 2. The Quincy Data Letter also made certain comments outside of the scope of the proposed rule change. Quincy argues that NASDAQ can ''control, delay or limit'' the vendors that can distribute NASDAQ data through (1) the market data license application process; (2) the co-location application and approval process; (3) the authorized telecom provider and application and approval process; and (4) by controlling the initial dissemination and re-dissemination of NASDAQ data from the trading engine and distribution of other market data within the NASDAQ data center. *Id.,* at 3. The Commission notes, as recognized in the NASDAQ Letter, that these comments are not germane to the proposed rule change, which deals solely with NASDAQ's creation of an alternative means of data transmission. Additionally, the processes the Quincy Data Letter notes here are subject to the relevant standards of the Act.

[14] *See Id.,* at 2.

[15] *See Id.,* at 3.

[16] *See Id.*

[17] *See* NASDAQ Letter, *supra* note 4, at 2.

[18] *See* Notice, *supra* note 3, at 65597.

[19] *See Id.,* at 5.

[20] *See Id.,* at 2.

[21] *See Id.,* at 4.

[22] *See* Notice, *supra* note 3, at 65599.

[23] *See Id.,* at 65597.

[24] *See* Quincy Data Letter, *supra* note 4, at 3.

[25] *See* Notice, *supra* note 3, at 65599.

[26] 15 U.S.C. 78s(b)(2).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[27]

Kevin M. O'Neill,

Deputy Secretary.

[FR Doc. 2013–02073 Filed 1–30–13; 8:45 am]

BILLING CODE 8011–01–P

DEPARTMENT OF TRANSPORTATION

Office of the Secretary

Application of Rhoades Aviation, Inc. d/b/a Transair for Certificate Authority

AGENCY: Department of Transportation.

ACTION: Notice of Order to Show Cause (Order 2013–1–13), Dockets DOT–OST–2011–0216 and DOT–OST–2012–0129.

SUMMARY: The Department of Transportation is directing all interested persons to show cause why it should not issue orders finding Rhoades Aviation, Inc. d/b/a Transair, fit, willing, and able, and to provide interstate and foreign charter air transportation of property and mail, using one large aircraft.

DATES: Persons wishing to file objections should do so no later than February 1, 2013.

ADDRESSES: Objections and answers to objections should be filed in Dockets DOT–OST–2011–0216 and DOT–OST–2012–0129 and addressed to U.S. Department of Transportation, Docket Operations, (M–30, Room W12–140), 1200 New Jersey Avenue SE., West Building Ground Floor, Washington, DC 20590, and should be served upon the parties listed in Attachment A to the order.

FOR FURTHER INFORMATION CONTACT: Reese Davidson, Air Carrier Fitness Division (X–56, Room W86–469), U.S. Department of Transportation, 1200 New Jersey Avenue SE., Washington, DC 20590, (202) 366–8161.

Dated: January 22, 2013.

Susan L. Kurland,

Assistant Secretary for Aviation and International Affairs.

[FR Doc. 2013–01862 Filed 1–30–13; 8:45 am]

BILLING CODE P

[27] 17 CFR 200.30–3(a)(12).

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Eleventh Meeting: RTCA Special Committee 225, Rechargeable Lithium Battery and Battery Systems—Small and Medium Size

AGENCY: Federal Aviation Administration (FAA), U.S. Department of Transportation (DOT).

ACTION: Meeting Notice of RTCA Special Committee 225, Rechargeable Lithium Battery and Battery Systems—Small and Medium Size.

SUMMARY: The FAA is issuing this notice to advise the public of the eleventh meeting of the RTCA Special Committee 225, Rechargeable Lithium Battery and Battery Systems—Small and Medium Size.

DATES: The meeting will be held February 7, 2013, from 11:00 a.m. to 3:00 p.m.

ADDRESSES: The meeting will be held via web teleconference only. Remote participation details are as follows:

- Go to the following web address to enter the teleconference: *https://rtca.webex.com/rtca/j.php?ED=144653812&UID=490931532&PW=NNGFhNzZlNjJm&RT=MiMxMQ%3D%3D.*
- If requested, enter your name and email address.
- If a password is required, enter the following password which is case sensitive: Meeting11.
- Click: join.
- To join via audio access only:
- Dial 1–888–481–3032 and enter passcode 56022675 when prompted.

FOR FURTHER INFORMATION CONTACT: The RTCA Secretariat, 1150 18th Street NW., Suite 910, Washington, DC 20036, or by telephone at (202) 833–9339, fax (202) 833–9434, or Web site at *http://www.rtca.org.* Alternatively, contact Jennifer Iverson directly at *jiversen@rtca.org,* telephone (202) 330–0662.

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463, 5 U.S.C., App.), notice is hereby given for a meeting of Special Committee 225. The agenda will include the following:

Thursday, February 7, 2013

- Introductions and administrative items.
- Review agenda.
- Review and approval of summary from the last Plenary meeting.
- Review action items.
- Consider approval of draft document for Final Review and Comment.
- Review schedule for upcoming Plenaries, working group meetings, and document preparation.
- Establish agenda for next Plenary.
- Review Progress and new action items.
- Adjourn.

Attendance is open to the interested public but limited to space availability. With the approval of the chairman, members of the public may present oral statements at the meeting.

Persons wishing to present statements or obtain information should contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Members of the public may present a written statement to the committee at any time.

Issued in Washington, DC, on January 16, 2013.

Paige L. Williams,

Management Analyst, Business Operations Group, Federal Aviation Administration.

[FR Doc. 2013–02014 Filed 1–30–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Notice of Final Federal Agency Actions on Proposed Interchange Project in Massachusetts

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of Limitations on Claims for Judicial Review of Actions by FHWA and the United States Army Corps of Engineers (USACE).

SUMMARY: This notice announces actions taken by the FHWA and the USACE that are final within the meaning of 23 U.S.C. 139(l)(1). The actions relate to the proposed Route 79/I–195 Interchange Project in Fall River—Bristol County, Massachusetts. The actions grant permits and approvals for the project.

DATES: By this notice, the FHWA is advising the public of final agency actions subject to 23 U.S.C. 139(l)(1). A claim seeking judicial review of the Federal agency actions on the highway project will be barred unless the claim is filed on or before June 30, 2013. If the Federal law that authorizes judicial review of a claim provides a time period of less than 150 days for filing such claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: For FHWA: Ms. Damaris Santiago, Environmental Engineer, FHWA Massachusetts Division Office, 55

Broadway, 10th Floor, Cambridge, MA 02142, Monday through Friday 8:00 a.m.–4:30 p.m., 617–494–2419, *DSantiago@dot.gov.* For the Massachusetts Department of Transportation Highway Division (MassDOT): Ms. Mary Hynes, Project Manager, Environmental Services, 10 Park Plaza, Room 4260, Boston, MA 02116, Monday through Friday 8:45 a.m.–5:00 p.m., 857–368–8801, *mary.e.hynes@state.ma.us.*

SUPPLEMENTARY INFORMATION: Notice is hereby given that the FHWA and USACE have taken final agency action subject to 23 U.S.C. 139(l)(1) by issuing a Finding of No Significant Impact (FONSI) and a Section 404 Permit, respectively, for the following project in the Commonwealth of Massachusetts. The project consists of removing the two-level Route 79 viaduct and constructing an at-grade Route 79 that will utilize portions of existing streets (Broadway Extension, Davol/Viaduct Street, and Davol Street). The at-grade roadway between Anawan/Pocasset Street and Central Street will be at the level of existing Davol/Viaduct Street and on a structure spanning the railroad tracks and the Quequechan River. The roadway will be four through lanes (two northbound and two southbound) for most of its length within the project area, plus turn lanes. New ramps will maintain the connections with I–195, Broadway Extension, Central Street, and Milliken Boulevard. Water Street Connector will be a new two-way roadway improving access between the waterfront and Route 79. Sidewalk and bicycle accommodations will be provided and improved.

The actions by the Federal agencies and the laws under which the actions were taken are described in the Environmental Assessment (EA), for which a Finding of No Significant Impact (FONSI) was issued November 28, 2012. Notice is hereby given that the USACE has taken final agency actions within the meaning of 23 U.S.C. § 139(l)(1) by issuing permits and approvals for the interchange project. The actions by the USACE, related final actions by other Federal agencies, and the laws under which such actions were taken, are described in the USACE decision and its administrative record for the project, referenced as USACE Permit Number NAE–2011–01843. The EA, FONSI, and USACE permit are available by contacting the Massachusetts Department of Transportation at the address provided above. Information about the project also is available from the FHWA at the address provided above.

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including, but are not limited to:

1. General: National Environmental Policy Act (NEPA) [42 U.S.C. 4321–4351].

2. Wetlands and Water Resources: Clean Water Act (Section 404) [33 U.S.C. 1251–1377].

Authority: 23 U.S.C. 139(l)(1).

Issued on: January 18, 2013.

Pamela S. Stephenson,

Division Administrator, Cambridge, MA.

[FR Doc. 2013–01824 Filed 1–30–13; 8:45 am]

BILLING CODE 4910–RY–M

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Information Collection Tools

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A)). Currently, the IRS is soliciting comments concerning an existing final regulation, REG–251698–96 (TD 8869), Subchapter S Subsidiaries (§§ 1.1361–3, 1.1361–5, and 1.1362–8); Revenue Procedure 2001–29, Leveraged Leases; Form 13362, Consent to Disclosure of Return Information; Form 8453–C, U.S. Corporation Income Tax Declaration for an IRS e-file Return and Form 8453–I, Foreign Corporation Income Tax Declaration for an IRS e-file Return; and REG–125638–01 (TD 9107-Final), Guidance Regarding Deduction and Capitalization of Expenditures.

DATES: Written comments should be received on or before April 1, 2013 to be assured of consideration.

ADDRESSES: Direct all written comments to Yvette Lawrence, Internal Revenue Service, Room 6129, 1111 Constitution Avenue NW., Washington, DC 20224. Please send separate comments for each specific information collection listed below. You must reference the information collection's title, form number, reporting or record-keeping requirement number, and OMB number (if any) in your comment.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the collection tools should be directed to R. Joseph Durbala, Internal Revenue Service, Room 6129, 1111 Constitution Avenue NW., Washington, DC 20224, or at (202)622–3634, or through the internet at *RJoseph.Durbala@irs.gov*.

SUPPLEMENTARY INFORMATION: Currently, the IRS is seeking comments concerning the following information collection tools, reporting, and record-keeping requirements:

(1) *Title:* Subchapter S Subsidiaries (§§ 1.1361–3, 1.1361–5, and 1.1362–8).

OMB Number: 1545–1590.

Form Number: TD 8869.

Abstract: This regulation relates to the treatment of corporate subsidiaries of S corporations and interprets the rules added to the Internal Revenue Code by section 1308 of the Small Business Job Protection Act of 1996. The collection of information required in the regulation is necessary for a taxpayer to obtain, retain, or terminate S corporation treatment.

Current Actions: There are no changes to the previously approved burden of this existing collection.

Type of Review: Extension of a currently approved collection.

Affected Public: Businesses or other for-profit organizations, individuals, and farms.

Estimated Number of Respondents: 10,660.

Estimated Time per Respondent: 57 min.

Estimated Total Annual Burden Hours: 10,110.

(2) *Title:* Leveraged Leases.

OMB Number: 1545–1738.

Form Number: Rev Proc 2001–29.

Abstract: Revenue Procedure 2001–29 sets forth the information and representations required to be furnished by taxpayers in requests for an advance ruling that a leveraged lease transaction is, in fact, a valid lease for federal income tax purposes.

Current Actions: There are no changes being made to the revenue procedure at this time.

Type of Review: Extension of a currently approved collection.

Affected Public: Individuals or households, business or other for-profit organizations, and not-for-profit institutions.

Estimated Number of Respondents: 10.

Estimated Time per Respondent: 80 hr.

Estimated Total Annual Reporting Burden Hours: 800.

(3) *Title:* Consent to Disclosure of Return Information.

OMB Number: 1545–1856.

Form Number: 13362.

Abstract: The Consent Form is provided to external applicant that will allow the Service the ability to conduct tax checks to determine if an applicant is suitable for employment once they are determined qualified and within reach to receive an employment offer.

Current Actions: There is no change in the paperwork burden previously approved by OMB.

Type of Review: Extension of a currently approved collection.

Affected Public: Federal Government.

Estimated Number of Respondents: 46,000.

Estimated Time per Respondent: 10 mins.

Estimated Total Annual Burden Hours: 7,664.

(4) *Title:* U.S. Corporation Income Tax Declaration for an IRS *e-file* Return and Foreign Corporation Income Tax Declaration for an IRS *e-file* Return.

OMB Number: 1545–1866.

Form Number: 8453–C and 8453–I.

Abstract: Form 8453–C is necessary to enable the electronic filing of Form 1120, U.S. Corporation Income Tax Return. The form is created to meet the stated Congressional policy that paperless filing is the preferred and most convenient means of filing Federal tax and information returns. Form 8453–I is used to enable the electronic filing of Form 1120–F.

Current Actions: There is no change in the paperwork burden previously approved by OMB.

Type of Review: Extension of a currently approved collection.

Affected Public: Business or other for-profit organizations.

Estimated Number of Respondents: 4,000.

Estimated Time per Respondent: 7 hrs., 13 min.

Estimated Total Annual Burden Hours: 28,880.

(5) *Title:* Guidance Regarding Deduction and Capitalization of Expenditures.

OMB Number: 1545–1870.

Form Number: REG–125638–01 (TD 9107-Final).

Abstract: The information required to be retained by taxpayers will constitute sufficient documentation for purposes of substantiating a deduction. The information will be used by the agency on audit to determine the taxpayer's entitlement to a deduction. The respondents include taxpayers who engage in certain transactions involving the acquisition of a trade or business or an ownership interest in a legal entity.

Current Actions: There is no change in the paperwork burden previously approved by OMB.

Type of Review: Extension of a currently approved collection.

Affected Public: Business or other for-profit organizations.

Estimated Number of Respondents: 3,000.

Estimated Time per Respondent: 1 hr.

Estimated Total Annual Burden Hours: 3,000.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: January 23, 2013.

R. Joseph Durbala,

IRS Reports Clearance Officer.

[FR Doc. 2013–02041 Filed 1–30–13; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Information Collection Tools

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A)). Currently, the IRS is soliciting comments concerning Form T, Forest Activities Schedule; EE–111–80 (TD 8019—Final), Public Inspection of Exempt Organization Return; Form 2587, Application for Special Enrollment Examination; Form 8831, Excise Taxes on Excess Inclusions of REMIC Residual Interests; and Notice 97–64, Temporary Regulations To Be Issued Under Section 1(h) of the Internal Revenue Code (Applying Section 1(h) to Capital Gain Dividends of RICs and REITs).

DATES: Written comments should be received on or before April 1, 2013 to be assured of consideration.

ADDRESSES: Direct all written comments to Yvette Lawrence, Internal Revenue Service, Room 6129, 1111 Constitution Avenue NW., Washington, DC 20224. Please send separate comments for each specific information collection listed below. You must reference the information collection's title, form number, reporting or record-keeping requirement number, and OMB number (if any) in your comment.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the collection tools should be directed to R. Joseph Durbala, Internal Revenue Service, Room 6129, 1111 Constitution Avenue NW., Washington, DC 20224, or at (202) 622–3634, or through the internet at *RJoseph.Durbala@irs.gov.*

SUPPLEMENTARY INFORMATION: Currently, the IRS is seeking comments concerning the following information collection tools, reporting, and record-keeping requirements:

(1) *Title:* Forest Activities Schedule.

OMB Number: 1545–0007.

Form Number: Form T.

Abstract: Form T is filed by individuals and corporations to report income and deductions from the operation of a timber business. The IRS uses Form T to determine if the correct amount of income and deductions are reported.

Current Actions: There are no changes to the previously approved burden of this existing collection.

Type of Review: Extension of a currently approved collection.

Affected Public: Individuals or households, Businesses or other for-profit organizations.

Estimated Number of Respondents: 37,000.

Estimated Time per Respondent: 36 hrs., 11 min.

Estimated Total Annual Burden Hours: 446,208.

(2) *Title:* Public Inspection of Exempt Organization Return.

OMB Number: 1545–0742.

Form Number: EE–111–80 (TD 8019—Final).

Abstract: Section 6104(b) authorizes the Service to make available to the public the returns required to be filed by exempt organizations. The information requested in Treasury Reg. section 301.6104(b)–1(b)(4) is necessary in order for the Service not to disclose confidential business information furnished by businesses which contribute to exempt black lung trusts.

Current Actions: There are no changes being made to the revenue procedure at this time.

Type of Review: Extension of a currently approved collection.

Affected Public: Businesses and other for-profits.

Estimated Number of Respondents: 22.

Estimated Time per Respondent: 1 hr.

Estimated Total Annual Reporting Burden Hours: 22.

(3) *Title:* Application for Special Enrollment Examination.

OMB Number: 1545–0949.

Form Number: 2587.

Abstract: Form 2587 is used by individuals to apply to take the Special Enrollment Examination to establish eligibility for enrollment to practice before the IRS. The information on the form is used by the Director of Practice to identify those individuals seeking to take the examination and to plan for the administration of the examination.

Current Actions: There is no change in the paperwork burden previously approved by OMB.

Type of Review: Extension of a currently approved collection.

Affected Public: Individuals.

Estimated Number of Respondents: 11,000.

Estimated Time per Respondent: 1 hr.

Estimated Total Annual Burden Hours: 11,000.

(4) *Title:* Excise Taxes on Excess Inclusions of REMIC Residual Interests.

OMB Number: 1545–1379.

Form Number: 8831.

Abstract: Taxpayers use Form 8831 to report and pay excise tax on any transfer of a residual interest in a REMIC to a disqualified organization, the amount due if the tax is waived, and the excise tax due on pass-through entities with interests held by disqualified organizations.

Current Actions: There is no change in the paperwork burden previously approved by OMB.

Type of Review: Extension of a currently approved collection.

Affected Public: Business or other for-profit organizations.

Estimated Number of Respondents: 31.

Estimated Time per Respondent: 7 hrs., 39 min.

Estimated Total Annual Burden Hours: 238.

(5) *Title:* Temporary Regulations To Be Issued Under Section 1(h) of the Internal Revenue Code (Applying Section 1(h) to Capital Gain Dividends of RICs and REITs).

OMB Number: 1545–1565.

Form Number: Notice 97–64.

Abstract: Notice 97–64 describes temporary regulations that will permit Regulated Investment Companies (RICs) and Real Estate Investment Trusts (REITs) to distribute multiple classes of capital gain dividends.

Current Actions: There is no change in the paperwork burden previously approved by OMB.

Type of Review: Extension of a currently approved collection.

Affected Public: Business or other for-profit organizations, and individuals.

Estimated Number of Respondents: 1.

Estimated Time per Respondent: 1 hr.

Estimated Total Annual Burden Hours: 1.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: January 23, 2013.

R. Joseph Durbala,

IRS Reports Clearance Officer.

[FR Doc. 2013–02045 Filed 1–30–13; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0774]

Agency Information Collection (Compensation and Pension Examination Program) Activities Under OMB Review

AGENCY: Veterans Health Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Health Administration, Department of Veterans Affairs, will submit the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden and includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503, (202) 395–7316. Please refer to ''OMB Control No. 2900–0774'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, fax (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0774.''

SUPPLEMENTARY INFORMATION:

Title: Compensation and Pension Examination Program (CPEP) Veterans Satisfaction Survey, VA Form 10–0480.

Type of Review: Extension on a currently approved collection.

Abstract: The survey will be used to gather feedback from Veterans regarding their experience at individual CPEP examination sites. VA will use the data collected to determine where and to what extent services are satisfactory or where improvement is needed.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on November 19, 2012, at pages 69549–69550.

Affected Public: Individuals or households.

Estimated Annual Burden: 153.

Estimated Average Burden per Respondent: 5.7 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents: 1,614.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02029 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0737]

Agency Information Collection (eBenefits Portal) Activity under OMB Review

AGENCY: Office of Information and Technology, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–21), this notice announces that the Office of Information and Technology, Department of Veterans Affairs, has submitted the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden; it includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov;* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503 (202) 395–7316. Please refer to ''OMB Control No. 2900–0737'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, FAX (202) 632–7583 or email *crystal.rennie@va.gov*. Please refer to ''OMB Control No. 2900–0737.''

SUPPLEMENTARY INFORMATION:

Title: eBenefits Portal.

OMB Control Number: 2900–0737.

Type of Review: Extension of a currently approved collection.

Abstract: The eBenefits portal, a joint project between the VA and DoD, is intended to serve as a single point of entry for benefits information. Users include members of the armed forces, veterans, wounded warriors, family members, delegates, and caregivers. Users wishing to access the full functionality of the eBenefits portal will register for a single sign-on credential that will ultimately be shared by other VA and DoD portals. The eBenefits portal allows authenticated users to create profiles for themselves so they can see a customized view of their homepage, receive personalized alerts, view a calendar of appointments, view content related to their benefits, and opt into other individualized features. Profiles will initially be populated with data from the existing Defense Enrollment Eligibility Reporting database, but will also offer users the option to indicate preferences and individual details that will enable the portal to deliver personalized information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on November 13, 2012, at page 67738.

Affected Public: Individuals or Households.

Estimated Annual Burden: 55,000 hours.

Estimated Average Burden per Respondent: 2 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents: 1,650,000.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02025 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0406]

Agency Information Collection (Verification of VA Benefits) Activity Under OMB Review

AGENCY: Veterans Benefits Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Benefits Administration, Department of Veterans Affairs will submit the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden; it includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503, (202) 395–7316. Please refer to ''OMB Control No. 2900–0406'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Records Management Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, FAX (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0406.''

SUPPLEMENTARY INFORMATION:

Title: Verification of VA Benefits, VA Form 26–8937.

OMB Control Number: 2900–0406.

Type of Review: Extension of a currently approved collection.

Abstract: Lenders authorized to make VA-guaranteed home or manufactured loans on an automatic basis are required to determine through VA whether any benefits related debts exist in the veteran-borrower's name prior to the closing of any automatic loan. Lenders cannot close any proposed automatic loan until evidence is received from VA stating that there is no debt, or if a debt exists, or the veteran has agreed on an acceptable repayment plan, or payments under a plan already in effect are current. VA Form 26–8937 is used to assist lenders and VA in the completion of debt checks in a uniform manner. The form restricts information requested to only that which is needed for the debt check and to eliminate unlimited versions of lender-designed forms. The form also informs the lender whether or not the veteran is exempt from paying the funding fee, which must be collected on all VA home loans unless the veteran is receiving service-connected disability compensation.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on October 19, 2012, at page 64383.

Affected Public: Individuals or households.

Estimated Annual Burden: 10,000 hours.

Estimated Average Burden per Respondent: 5 minutes.

Frequency of Response: One-time.

Estimated Number of Respondents: 120,000.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02023 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0176]

Agency Information Collection (Monthly Record of Training and Wages) Activities Under OMB

AGENCY: Veterans Benefits Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Benefits Administration (VBA), Department of Veterans Affairs, has submitted the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden; it includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503 (202) 395–7316. Please refer to ''OMB Control No. 2900–0176'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, FAX (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0176.''

SUPPLEMENTARY INFORMATION:

Title: Monthly Record of Training and Wages, VA Form 28–1905c.

OMB Control Number: 2900–0176.

Type of Review: Extension of a currently approved collection.

Abstract: On-the-job training establishments and trainers in certain special programs use VA Form 28–1905c to maintain accurate records on a trainee's progress toward rehabilitation goals as well as recording the trainee's on-the-job training monthly wages. Trainers report these wages on the form at the beginning of the program and at any time the trainee's wage rate changes. Following a trainee's completion of a vocational rehabilitation program, the form is submitted to the trainee's case manager to monitor the trainee's training and to ensure that the trainee is progressing and learning the skills necessary to carry out the duties of his or her occupational goal.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on November 13, 2012, at page 67737.

Affected Public: Individuals or households.

Estimated Annual Burden: 3,600 hours.

Estimated Average Burden per Respondent: 15 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents: 15,000.

Dated: January 25, 2012.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02026 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0745]

Agency Information Collection (Request for Certificate of Veteran Status) Activities Under OMB

AGENCY: Veterans Benefits Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Benefits Administration (VBA), Department of Veterans Affairs, has submitted the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden; it includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503 (202) 395–7316. Please refer to ''OMB Control No. 2900–New (26–8261a)'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, FAX (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0745.''

SUPPLEMENTARY INFORMATION:

Title: Request for Certificate of Veteran Status, VA Form 26–8261a.

OMB Control Number: 2900–0745.

Type of Review: Extension of a currently approved collection.

Abstract: The data collected on VA Form 26–8261a will be used to determine Veteran applicants' eligibility to receive a reduced down payment on a Federal Housing Administration (FHA) backed loan.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on October 19, 2012, at page 64386.

Affected Public: Individuals or households.

Estimated Annual Burden: 4 hours.

Estimated Average Burden per Respondent: 10 minutes.

Frequency of Response: One time.

Estimated Number of Respondents: 25.

Dated: January 25, 2012.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02024 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0775]

Proposed Information Collection (Patient Satisfaction Survey Michael E. DeBakey Home Care Program) Activity: Comment Request

AGENCY: Veterans Health Administration, Department of Veterans Affairs

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Health Administration, Department of Veterans Affairs, will submit the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden; it includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov;* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503 (202) 395–7316. Please refer to ''OMB Control No. 2900–0775'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202)632–7492, FAX (202) 632–7583 or email *crystal.rennie@va.gov*. Please refer to ''OMB Control No. 2900–0775.''

SUPPLEMENTARY INFORMATION:

Title: Patient Satisfaction Survey Michael E. DeBakey Home Care Program, VA Form 10–0476.

OMB Control Number: 2900–0775.

Type of Review: Extension of a currently approved collection.

Abstract: VA Form 10–0476 will be used to gather feedback from patients regarding their satisfaction with the quality of services/care provided by home care program staff.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on November 19, 2012, at page 69550.

Estimated Annual Burden: 17 hours.

Estimated Average Burden per Respondent: 10 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents: 50.

Estimated Number of Responses: 100.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02034 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0335]

Agency Information Collection (Dental Record Authorization and Invoice for Outpatient Services) Activity Under OMB Review

AGENCY: Veterans Health Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Health Administration (VHA), Department of Veterans Affairs, has submitted the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden and includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov;* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503, (202) 395–7316. Please refer to ''OMB Control No. 2900–0335'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, fax (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0335.''

SUPPLEMENTARY INFORMATION:

Title: Dental Record Authorization and Invoice for Outpatient Services, VA Form 10–2570d.

OMB Control Number: 2900–0335.

Type of Review: Extension of a currently approved collection.

Abstract: VA Form 10–2570d is essential to the proper administration of VA outpatient fee dental program. The associated instructions make it possible to communicate with clarity the required procedures, peculiarities, and precautions associated with VA authorizations for contracting with private dentists for the provision of dental treatment for eligible veteran beneficiaries. Since most of the veterans who are authorized fee dental care are geographically inaccessible to VA dental clinics, it is necessary to request information as to the veteran's oral condition, treatment needs and the usual customary fees for these services from the private fee dentist whom the veteran has selected. The form lists the dental treatment needs of the veteran patient, the cost to VA to provide such services, and serves as an invoice for payment. VA uses the data collected to verify the veteran's eligibility to receive dental benefits.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period

soliciting comments on this collection of information was published on November 19, 2012, on pages 69550–69551.

Affected Public: Business and other for profit.

Estimated Total Annual Burden: 3,666 hours.

Estimated Average Burden per Respondent: 20 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents: 11,000.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02028 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0518]

Agency Information Collection (Income Verification) Activity Under OMB Review

AGENCY: Veterans Benefits Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Benefits Administration (VBA), Department of Veterans Affairs, will submit the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden; it includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov;* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503, (202) 395–7316. Please refer to ''OMB Control No. 2900–0518'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, FAX (202) 632–7583 or email *crystal.rennie@va.gov*. Please refer to ''OMB Control No. 2900–0518.''

SUPPLEMENTARY INFORMATION:

Title: Income Verification, VA Form 21–0161a.

OMB Control Number: 2900–0518.

Type of Review: Extension of a currently approved collection.

Abstract: VA Form 21–0161a is completed by employers of beneficiaries who have been identified as having inaccurately reported their income to VA. The data collected is used to determine the beneficiary's entitlement to income dependent benefits.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on October 22, 2012, at pages 64596–64597.

Affected Public: Business or other for-profit.

Estimated Annual Burden: 15,000 hours.

Frequency of Response: One time.

Estimated Number of Respondents: 30 minutes.

Estimated Annual Responses: 30,000.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02035 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0465]

Agency Information Collection (Student Verification of Enrollment) Activity Under OMB Review

AGENCY: Veterans Benefits Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Benefits Administration (VBA), Department of Veterans Affairs, will submit the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden; it includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov;* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503, (202) 395–7316. Please refer to ''OMB Control No. 2900–0465'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, FAX (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0465.''

SUPPLEMENTARY INFORMATION:

Title: Student Verification of Enrollment, VA Form 22–8979.

OMB Control Number: 2900–0465.

Type of Review: Extension of a currently approved collection.

Abstract: VA Form 22–8979 contains a student's certification of actual attendance and verification of the student's continued enrollment in courses leading to a standard college degree or in non-college degree programs. VA uses the data collected to determine the student's continued entitlement to benefits. Students are required to submit verification on a monthly basis to allow for a frequent, periodic release of payment.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on November 13, 2012, at pages 67737–67738.

Affected Public: Individuals or households.

Estimated Annual Burden: 42,313 hours.

Estimated Average Burden per Respondent: 1 minute.

Frequency of Response: On occasion.

Estimated Number of Respondents: 362,684.

Estimated Number of Responses: 2,538,788.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02027 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0376]

Agency Information Collection (Agent Orange Registry Code Sheet) Activities Under OMB Review

AGENCY: Veterans Health Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3521), this notice announces that the Veterans Health Administration (VHA), Department of Veterans Affairs, has submitted the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden and includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov*; or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503 (202) 395–7316. Please refer to ''OMB Control No. 2900–0376'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW, Washington, DC 20420, (202) 632–7492, fax (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0376.''

SUPPLEMENTARY INFORMATION:

Title: Agent Orange Registry Code Sheet, VA Form 10–9009.

OMB Control Number: 2900–0376.

Type of Review: Extension of a currently approved collection.

Abstract: VA in an on-going effort to maintain an Agent Orange Registry (AOR) developed a reporting format to facilitate the collection of information obtained from Veterans during the Agent Orange registry examination process. VA is required to organize and update the information contained in AOR to be able to notify Vietnam era veterans who served in the Republic of Vietnam of any increased health risks resulting from exposure to dioxin or other toxic agents. VA may also provide, upon request, a health examination, consultation, and counseling Veterans who are eligible for listing or inclusion in any health-related registry administrated by VA that is similar to the Persian Gulf War Veterans Health Registry. Registry examinations is provided to veterans who served in Korea in 1968 or 1969, and/or any U.S. veteran who may have been exposed to dioxin, or other toxic substance in a herbicide or defoliant, during the conduct of, or as a result of, the testing, transporting, or spraying of herbicides, and who requests an Agent Orange Registry examination. VA will enter the information obtained from the veteran during the interview on VA Form 10–9009, Agent Orange Registry Code Sheet. The registry will provide a mechanism that will catalogue prominent symptoms, reproductive health, and diagnoses and to communicate with Agent Orange Veterans. VA will inform the veterans on research finding or new compensation policies through periodic newsletters. The registry is not designed or intended to be a research tool and therefore the results cannot be generalized to represent all Agent Orange Veterans.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on November 19, 2012, at pages 69548–69549.

Affected Public: Individuals or Households.

Estimated Total Annual Burden: 6,667 hours.

Estimated Average Burden per Respondent: 20 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents: 20,000.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02109 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

[OMB Control No. 2900–0567]

Agency Information Collection (President Memorial Certificate (PMC)) Activity Under OMB Review

AGENCY: National Cemetery Administration, Department of Veterans Affairs.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–21), this notice announces that the National Cemetery Administration, Department of Veterans Affairs, will submit the collection of information abstracted below to the Office of Management and Budget (OMB) for review and comment. The PRA submission describes the nature of the information collection and its expected cost and burden and includes the actual data collection instrument.

DATES: Comments must be submitted on or before March 4, 2013.

ADDRESSES: Submit written comments on the collection of information through *www.Regulations.gov;* or to VA's OMB Desk Officer, OMB Human Resources and Housing Branch, New Executive Office Building, Room 10235, Washington, DC 20503 (202) 395–7316. Please refer to ''OMB Control No. 2900–0567'' in any correspondence.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie, Enterprise Records Service (005R1B), Department of Veterans Affairs, 810 Vermont Avenue NW., Washington, DC 20420, (202) 632–7492, fax (202) 632–7583 or email *crystal.rennie@va.gov.* Please refer to ''OMB Control No. 2900–0567.''

SUPPLEMENTARY INFORMATION:

Title: PMC, VA Form 40–0247.

OMB Control Number: 2900–0567.

Type of Review: Extension of a currently approved collection.

Abstract: The PMC is automatically issued without a request from the next of kin as part of processing a death benefits claim. The PMC allows eligible recipients (next of kin, other relatives or friends) to request additional certificates and/or replacement or corrected certificates upon the receipt of the original PMC.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The **Federal Register** Notice with a 60-day comment period soliciting comments on this collection of information was published on October 19, 2012, on page 64382.

Affected Public: Individuals or households.

Estimated Annual Burden: 10,545.

Estimated Average Burden per Respondent: 2 minutes.

Frequency of Response: On occasion.

Estimated Number of Respondents: 316,346.

Dated: January 25, 2013.

By direction of the Secretary.

William F. Russo,

Deputy Director, Office of Regulations Policy and Management, Office of General Counsel, Department of Veterans Affairs.

[FR Doc. 2013–02022 Filed 1–30–13; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

Health Services Research and Development Service Scientific Merit Review Board; Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under the Federal Advisory Committee Act, 5 U.S.C. App. 2, that the Centers of Innovation subcommittee of the Health Services Research and Development Service Scientific Merit Review Board will meet on February 13–14, 2013, at the Sheraton Pentagon City Hotel, 900 South Orme Street, Arlington, Virginia. The sessions will begin at 8 a.m. on both days and adjourn at 5:45 p.m. on February 13 and at 4 p.m. on February 14. The meeting will be open to the public the first day for approximately one half-hour from 8 a.m. until 8:30 a.m. to cover administrative matters and to discuss the general status of the program. The remaining portion of the meetings will be closed. The closed portion of the meeting will involve discussion, examination, reference to, and oral review of the intramural research proposals and critiques.

The purpose of the Board is to review research and development center applications involving the measurement and evaluation of health care services, the testing of new methods of health care delivery and management, and nursing research. Applications are reviewed for scientific and technical merit. Recommendations regarding funding are submitted to the Chief Research and Development Officer.

During the closed portion of the meeting, discussion and recommendations will include qualifications of the personnel conducting the studies (the disclosure of which would constitute a clearly unwarranted invasion of personal privacy), as well as research information (the premature disclosure of which would likely compromise significantly the implementation of proposed agency action regarding such research projects). As provided by subsection 10(d) of Public Law 92–463, as amended by Public Law 94–409, closing portions of each meeting is in accordance with 5 U.S.C. 552b(c)(6) and (9)(B).

Those who plan to attend the open sessions should contact Ms. Kristy Benton-Grover, Program Manager, Scientific Merit Review Board, Department of Veterans Affairs, Health Services Research and Development Service (10P9H), 810 Vermont Avenue NW., Washington, DC 20420, or by email at *Kristy.benton-grover@va.gov.* For further information, please call Mrs. Benton-Grover at (202) 443–5728.

Dated: January 25, 2013.

By Direction of the Secretary.

Vivian Drake,

Committee Management Officer.

[FR Doc. 2013–02062 Filed 1–30–13; 8:45 am]

BILLING CODE P

FEDERAL REGISTER

Vol. 78 Thursday,
No. 21 January 31, 2013

Part II

Bureau of Consumer Financial Protection

12 CFR Parts 1024 and 1026
High-Cost Mortgage and Homeownership Counseling Amendments to the Truth in Lending Act (Regulation Z) and Homeownership Counseling Amendments to the Real Estate Settlement Procedures Act (Regulation X); Final Rule

BUREAU OF CONSUMER FINANCIAL PROTECTION

12 CFR Parts 1024 and 1026

[Docket No. CFPB–2012–0029]

RIN 3170–AA12

High-Cost Mortgage and Homeownership Counseling Amendments to the Truth in Lending Act (Regulation Z) and Homeownership Counseling Amendments to the Real Estate Settlement Procedures Act (Regulation X)

AGENCY: Bureau of Consumer Financial Protection.

ACTION: Final rule; official interpretations.

SUMMARY: The Bureau of Consumer Financial Protection (Bureau) issues this final rule to implement the Dodd-Frank Wall Street Reform and Consumer Protection Act's amendments to the Truth in Lending Act and the Real Estate Settlement Procedures Act. The final rule amends Regulation Z (Truth in Lending) by expanding the types of mortgage loans that are subject to the protections of the Home Ownership and Equity Protections Act of 1994 (HOEPA), revising and expanding the tests for coverage under HOEPA, and imposing additional restrictions on mortgages that are covered by HOEPA, including a pre-loan counseling requirement. The final rule also amends Regulation Z and Regulation X (Real Estate Settlement Procedures Act) by imposing certain other requirements related to homeownership counseling, including a requirement that consumers receive information about homeownership counseling providers.

DATES: The rule is effective January 10, 2014.

FOR FURTHER INFORMATION CONTACT: Richard Arculin and Courtney Jean, Counsels; and Pavneet Singh, Senior Counsel, Office of Regulations, at (202) 435–7700.

SUPPLEMENTARY INFORMATION:

I. Summary of Final Rule

The Home Ownership and Equity Protection Act (HOEPA) was enacted in 1994 as an amendment to the Truth in Lending Act (TILA) to address abusive practices in refinancing and home-equity mortgage loans with high interest rates or high fees. Loans that meet HOEPA's high-cost coverage tests are subject to special disclosure requirements and restrictions on loan terms, and borrowers in high-cost mortgages [1] have enhanced remedies for violations of the law. The provisions of TILA, including HOEPA, are implemented in the Bureau's Regulation Z.[2]

In response to the recent mortgage crisis, Congress amended HOEPA through the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) in order to expand the coverage of HOEPA and add protections for high-cost mortgages, including a requirement that borrowers receive homeownership counseling before obtaining a high-cost mortgage. In addition, several provisions of the Dodd-Frank Act also require or encourage consumers to obtain homeownership counseling for other types of loans. The Bureau is finalizing this rule to implement the HOEPA and homeownership counseling-related requirements.

Scope of HOEPA Coverage

The final rule implements the Dodd-Frank Act's amendments that expanded the universe of loans potentially covered by HOEPA. Under the final rule, most types of mortgage loans secured by a consumer's principal dwelling, including purchase-money mortgages, refinances, closed-end home-equity loans, and open-end credit plans (*i.e.,* home equity lines of credit or HELOCs) are potentially subject to HOEPA coverage. The final rule retains the exemption from HOEPA coverage for reverse mortgages. In addition, the final rule adds exemptions from HOEPA coverage for three types of loans that the Bureau believes do not present the same risk of abuse as other mortgage loans: loans to finance the initial construction of a dwelling, loans originated and financed by Housing Finance Agencies, and loans originated through the United States Department of Agriculture's (USDA) Rural Housing Service section 502 Direct Loan Program.

Revised HOEPA Coverage Tests

The final rule implements the Dodd-Frank Act's revisions to HOEPA's coverage tests by providing that a transaction is a high-cost mortgage if any of the following tests is met:

- The transaction's annual percentage rate (APR) exceeds the applicable average prime offer rate by more than 6.5 percentage points for most first-lien mortgages, or by more than 8.5 percentage points for a first mortgage if the dwelling is personal property and the transaction is for less than $50,000;
- The transaction's APR exceeds the applicable average prime offer rate by more than 8.5 percentage points for subordinate or junior mortgages;
- The transaction's points and fees exceed 5 percent of the total transaction amount or, for loans below $20,000, the lesser of 8 percent of the total transaction amount or $1,000 (with the dollar figures also adjusted annually for inflation); or
- The credit transaction documents permit the creditor to charge or collect a prepayment penalty more than 36 months after transaction closing or permit such fees or penalties to exceed, in the aggregate, more than 2 percent of the amount prepaid.

The final rule also provides guidance on how to apply the various coverage tests, such as how to determine the applicable average prime offer rate and how to calculate points and fees.

Restrictions on Loan Terms

The final rule also implements new Dodd-Frank Act restrictions and requirements concerning loan terms and origination practices for mortgages that fall within HOEPA's coverage test. For example:

- Balloon payments are generally banned, unless they are to account for the seasonal or irregular income of the borrower, they are part of a short-term bridge loan, or they are made by creditors meeting specified criteria, including operating predominantly in rural or underserved areas.
- Creditors are prohibited from charging prepayment penalties and financing points and fees.
- Late fees are restricted to four percent of the payment that is past due, fees for providing payoff statements are restricted, and fees for loan modification or payment deferral are banned.
- Creditors originating HELOCs are required to assess consumers' ability to repay. (Creditors originating high-cost, closed-end credit transactions already are required to assess consumers' ability to repay under the Bureau's 2013 Ability-to-repay (ATR) Final Rule addressing a Dodd-Frank Act requirement that creditors determine that a consumer is able to repay a mortgage loan.)
- Creditors and mortgage brokers are prohibited from recommending or encouraging a consumer to default on a loan or debt to be refinanced by a high-cost mortgage.

[1] Mortgages covered by the HOEPA amendments have been referred to as ''HOEPA loans,'' ''Section 32 loans,'' or ''high-cost mortgages.'' The Dodd-Frank Act now refers to these loans as ''high-cost mortgages.'' *See* Dodd-Frank Act section 1431; TILA section 103(bb). For simplicity and consistency, this final rule uses the term ''high-cost mortgages'' to refer to mortgages covered by the HOEPA amendments.

[2] 12 CFR part 1026.

• Before making a high-cost mortgage, creditors are required to obtain confirmation from a federally certified or approved homeownership counselor that the consumer has received counseling on the advisability of the mortgage.

Other Counseling-Related Requirements

The final rule implements two additional Dodd-Frank Act homeownership counseling-related provisions that are not amendments to HOEPA.

• The final rule requires lenders to provide a list of homeownership counseling organizations to consumers within three business days after they apply for a mortgage loan, with the exclusion of reverse mortgages and mortgage loans secured by a timeshare. The final rule requires the lender to obtain the list from either a Web site that will be developed by the Bureau or data that will made available by the Bureau or the Department of Housing and Urban Development (HUD) for compliance with this requirement.

• The final rule implements a new requirement under TILA that creditors must obtain confirmation that a first-time borrower has received homeownership counseling from a federally certified or approved homeownership counselor or counseling organization before making a loan that provides for or permits negative amortization to the borrower.

Effective Date

The rule is effective January 10, 2014.

II. Background

A. HOEPA

HOEPA was enacted as part of the Riegle Community Development and Regulatory Improvement Act of 1994, Public Law 103–325, 108 Stat. 2160, in response to evidence concerning abusive practices in mortgage loan refinancing and home-equity lending.[3] The statute did not apply to purchase-money mortgages or reverse mortgages but covered other closed-end mortgage credit, *e.g.,* refinances and closed-end home equity loans. Coverage was triggered where a loan's APR exceeded comparable Treasury securities by specified thresholds for particular loan types, or where points and fees exceeded 8 percent of the total loan amount or a dollar threshold.

For high-cost mortgages meeting either of those thresholds, HOEPA required lenders to provide special pre-closing disclosures, restricted prepayment penalties and certain other loan terms, and regulated various lender practices, such as extending credit without regard to a consumer's ability to repay the loan. HOEPA also provided a mechanism for consumers to rescind covered loans that included certain prohibited terms and to obtain higher damages than are allowed for other types of TILA violations, including finance charges and fees paid by the consumer. Finally, HOEPA amended TILA section 131, 15 U.S.C. 1641, to provide for increased liability to purchasers of high cost mortgages. Purchasers and assignees of loans not covered by HOEPA generally are liable only for violations of TILA which are apparent on the face of the disclosure statements, whereas purchasers of high cost mortgages generally are subject to all claims and defenses against the original creditor with respect to the mortgage.

The Board of Governors of the Federal Reserve System (Board) first issued regulations implementing HOEPA in 1995. *See* 60 FR 15463 (March 24, 1995). The Board published additional significant changes in 2001 that lowered HOEPA's APR trigger for first-lien mortgage loans, expanded the definition of points and fees to include the cost of optional credit insurance and debt cancellation premiums, and enhanced the restrictions associated with high cost mortgages. *See* 66 FR 65604 (Dec. 20, 2001). In 2008, the Board exercised its authority under HOEPA to require certain consumer protections concerning a consumer's ability to repay, prepayment penalties, and escrow accounts for taxes and insurance for a new category of ''higher-priced mortgage loans'' with APRs that are lower than those prescribed for high cost mortgages but that nevertheless exceed the average prime offer rate by prescribed amounts. 73 FR 44522 (July 30, 2008) (the 2008 HOEPA Final Rule).

Historically, the Board's Regulation Z, 12 CFR part 226, has implemented TILA, including HOEPA. Pursuant to the Dodd-Frank Act, general rulemaking authority for TILA, including HOEPA, transferred from the Board to the Bureau on July 21, 2011. *See* sections 1061, 1096, and 1100A(2) of the Dodd-Frank Act. Accordingly, the Bureau published for public comment an interim final rule establishing a new Regulation Z, 12 CFR part 1026, implementing TILA (except with respect to persons excluded from the Bureau's rulemaking authority by section 1029 of the Dodd-Frank Act). 76 FR 79768 (Dec. 22, 2011). This rule did not impose any new substantive obligations but did make technical, conforming, and stylistic changes to reflect the transfer of authority and certain other changes made by the Dodd-Frank Act. The Bureau's Regulation Z took effect on December 30, 2011. Sections 1026.31, 1026.32, and 1026.34 of the Bureau's Regulation Z implement the HOEPA provisions of TILA.

B. RESPA

Congress enacted the Real Estate Settlement Procedures Act (RESPA), 12 U.S.C. 2601 *et seq.,* in 1974 to provide consumers with greater and timelier information on the nature and costs of the residential real estate settlement process and to protect consumers from unnecessarily high settlement charges, including through the use of disclosures and the prohibition of kickbacks and referral fees. RESPA's disclosure requirements generally apply to ''settlement services'' for ''federally related mortgage loans,'' a term that includes virtually any purchase-money or refinance loan secured by a first or subordinate lien on one-to-four family residential real property. 12 U.S.C. 2602(1). Section 5 of RESPA generally requires that lenders provide applicants for federally related mortgage loans a home-buying information booklet containing information about the nature and costs of real estate settlement services and a good faith estimate of charges the borrower is likely to incur during the settlement process. *Id.* at 2604. The booklet and good faith estimate must be provided not later than three business days after the lender receives an application, unless the lender denies the application for credit before the end of the three-day period. *Id.* at 2604(d).

Historically, Regulation X of the Department of Housing and Urban Development (HUD), 24 CFR part 3500, has implemented RESPA. The Dodd-Frank Act transferred rulemaking authority for RESPA to the Bureau, effective July 21, 2011. *See* sections 1061 and 1098 of the Dodd-Frank Act. Pursuant to the Dodd-Frank Act and RESPA, as amended, the Bureau published for public comment an interim final rule establishing a new Regulation X, 12 CFR part 1024, implementing RESPA. 76 FR 78978 (Dec. 20, 2011). This rule did not impose any new substantive obligations but did make certain technical, conforming, and stylistic changes to reflect the transfer of authority and certain other changes made by the Dodd-Frank Act. The Bureau's Regulation X took effect on December 30, 2011.

[3] HOEPA amended TILA by adding new sections 103(aa) and 129, 15 U.S.C. 1602(aa) and 1639.

C. The Dodd-Frank Act

Congress enacted the Dodd-Frank Act after a cycle of unprecedented expansion and contraction in the mortgage market sparked the most severe U.S. recession since the Great Depression.[4] The Dodd-Frank Act created the Bureau and consolidated various rulemaking and supervisory authorities in the new agency, including the authority to implement TILA (including HOEPA) and RESPA.[5] At the same time, Congress significantly amended the statutory requirements governing mortgage practices with the intent to restrict the practices that contributed to the crisis.

As part of these changes, sections 1431 through 1433 of the Dodd-Frank Act significantly amended HOEPA to expand the types of loans potentially subject to HOEPA coverage, to revise the triggers for HOEPA coverage, and to strengthen and expand the restrictions that HOEPA imposes on those mortgages.[6] Several provisions of the Dodd-Frank Act also require and encourage consumers to obtain homeownership counseling. Sections 1433(e) and 1414 require creditors to obtain confirmation that a borrower has obtained counseling from a federally approved counselor prior to extending a high-cost mortgage under HOEPA or (in the case of first-time borrowers) a negative amortization loan. The Dodd-Frank Act also amended RESPA to require distribution of a housing counselor list as part of the general mortgage application process. The Bureau is finalizing this rule to implement the HOEPA and homeownership counseling-related requirements.

D. The Market for High-Cost Mortgages

Since the enactment of HOEPA, originations of mortgages covered by HOEPA have accounted for an extremely small percentage of the market. This may be due to a variety of factors, including the fact that HOEPA's coverage thresholds were set relatively high, HOEPA's assignee liability provisions make the loans relatively unattractive to secondary market investors, and general compliance burden and perceived stigma. Data collected under the Home Mortgage Disclosure Act (HMDA), 12 U.S.C. 2801 *et seq.,* further indicate that the percentage share of high-cost mortgages has generally been declining since 2004, the first year that HMDA reporters were required to identify high-cost mortgages. Between 2004 and 2011, high-cost mortgages typically comprised about 0.2 percent of HMDA-reporters' originations of refinance or home-improvement loans secured by a one-to-four family home (the class of mortgages generally covered by HOEPA). This percentage peaked at 0.45 percent in 2005 when, of about 8.0 million originations of such loans, there were approximately 36,000 high-cost mortgages reported in HMDA. The percentage fell to 0.05 percent by 2011 when nearly 2,400 high-cost mortgages were reported compared with roughly 4.5 million refinance or home-improvement loans secured by a one- to four-family home.

Similarly, the number of HMDA-reporting creditors that originate high-cost mortgages is relatively small. From 2004 through 2009, between 1,000 to 2,000 creditors that report under HMDA (between 12 to 22 percent of HMDA-reporters in a given year) reported extending high-cost mortgages. In each year between 2004 and 2011, the vast majority of creditors—roughly 80–90 percent of those that made any high-cost mortgages and 96 percent or more of all HMDA reporters—made fewer than 10 high-cost mortgages. In 2010, only about 650 creditors reported any high-cost mortgages. In 2011 fewer than 600 creditors, or roughly 8 percent of HMDA filers, reported originating any high-cost mortgages, and about 50 creditors accounted for over half of 2011 HOEPA originations. As discussed above, the Dodd-Frank Act expanded the types of loans potentially covered by HOEPA by including purchase-money mortgages and HELOCs and also lowering the coverage thresholds. Notwithstanding this expansion, the Bureau believes that HOEPA lending will continue to constitute a small percentage of the mortgage lending market. *See* part VII below for a detailed discussion of the likely impact of the Bureau's implementation of the Dodd-Frank Act amendments on HOEPA lending.

III. Summary of the Rulemaking Process

A. The Bureau's Proposal

The Bureau issued for public comment its proposal to amend Regulation Z to implement the Dodd-Frank Act amendments to HOEPA on July 9, 2012. This proposal was published in the **Federal Register** on August 15, 2012. *See* 77 FR 49090 (August 15, 2012) (2012 HOEPA Proposal or the proposal). The proposal also would have implemented certain homeownership counseling-related requirements that Congress adopted in the Dodd-Frank Act, that are not amendments to HOEPA.

The proposal would have implemented the Dodd-Frank Act's amendments that expanded the universe of loans potentially covered by HOEPA to include most types of mortgage loans secured by a consumer's principal dwelling. Reverse mortgages continued to be excluded. The proposal also would have implemented the Dodd-Frank Act's amendments to HOEPA's coverage tests, including adding a new threshold for prepayment penalties, and would have provided guidance on how to apply the coverage tests. In addition, the proposed rule also would have implemented new Dodd-Frank Act restrictions and requirements concerning loan terms and origination practices for high-cost mortgages.

With respect to homeownership counseling-related requirements that are not amendments to HOEPA, under the proposal, lenders generally would have been required to distribute a list of five homeownership counselors or counseling organizations to a consumer applying for a federally related mortgage loan within three business days after receiving the consumer's application. The proposal also would have implemented a new requirement that first-time borrowers receive homeownership counseling before taking out a negative amortization loan.

B. Comments and Outreach

The Bureau received over 150 comments on its proposal from, among others, consumer groups, industry trade associations, banks, community banks, credit unions, financial companies, State housing finance authorities, counseling associations and intermediaries, a State Attorney General's office, and individual consumers and academics. In addition, after the close of the original comment period, various interested parties including industry and consumer group commenters were required to submit written summaries of ex parte

[4] For more discussion of the mortgage market, the financial crisis, and mortgage origination generally, *see* the Bureau's 2013 ATR Final Rule.

[5] Sections 1011 and 1021 of title X of the Dodd-Frank Act, the ''Consumer Financial Protection Act,'' Public Law 111–203, sec. 1001–1100H, 124 Stat. 1375 (2010) (codified at 12 U.S.C. 5491, 5511). The Consumer Financial Protection Act is substantially codified at 12 U.S.C. 5481–5603.

[6] As amended, the HOEPA provisions of TILA will be codified at 15 U.S.C. 1602(bb) and 1639. The Bureau notes that the Dodd-Frank Act amended existing TILA section 103(aa) and renumbered it as section 103(bb), 15 U.S.C. 1602(bb). *See* § 1100A(1)(A) of the Dodd-Frank Act. This proposal generally references TILA section 103(aa) to refer to the pre-Dodd-Frank Act provision, which is in effect until the Dodd-Frank Act's amendments take effect, and TILA section 103(bb) to refer to the amended and renumbered provision.

communications with the Bureau, consistent with the Bureau's policy.[7] Materials submitted were filed in the record and are publicly available at *http://www.regulations.gov.* With the exception of comments addressing proposed mitigating measures to account for a more inclusive finance charge, these comments and ex parte communications are discussed below in the section-by-section analysis of the final rule.

As discussed in further detail below, the Bureau sought comment in its HOEPA proposal on whether to adopt certain adjustments or mitigating measures in its HOEPA implementing regulations if it were to adopt a broader definition of ''finance charge'' under Regulation Z. The Bureau has since published a notice in the **Federal Register** making clear that it will defer its decision whether to adopt the more inclusive finance charge proposal, and therefore any implementation thereof, until it finalizes the its proposal to TILA–RESPA Proposal, which is planned for later in 2013. 77 FR 54843 (Sept. 6, 2012). Accordingly, this final rule is deferring discussion of any comments addressing proposed mitigating measures to account for a more inclusive finance charge under HOEPA.

The Bureau has carefully considered the comments and ex parte communications and has decided to modify the proposal in certain respects and adopt the final rules as described below in the section-by-section analysis.

C. Other Rulemakings

In addition to this final rule, the Bureau is adopting several other final rules and issuing one proposal, all relating to mortgage credit to implement requirements of title XIV of the Dodd-Frank Act. The Bureau is also issuing a final rule jointly with other Federal agencies to implement requirements for mortgage appraisals in title XIV. Each of the final rules follows a proposal issued in 2011 by the Board or in 2012 by the Bureau alone or jointly with other Federal agencies. Collectively, these proposed and final rules are referred to as the Title XIV Rulemakings.

- *Ability-to-Repay:* The Bureau is finalizing a rule, following a May 2011 proposal issued by the Board (the Board's 2011 ATR Proposal),[8] to implement provisions of the Dodd-Frank Act (1) requiring creditors to determine that a consumer has a reasonable ability to repay covered mortgage loans and establishing standards for compliance, such as by making a ''qualified mortgage,'' and (2) establishing certain limitations on prepayment penalties, pursuant to TILA section 129C as established by Dodd-Frank Act sections 1411, 1412, and 1414. 15 U.S.C. 1639c. The Bureau's final rule is referred to as the 2013 ATR Final Rule. Simultaneously with the 2013 ATR Final Rule, the Bureau is issuing a proposal to amend the final rule implementing the ability-to-repay requirements, including by the addition of exemptions for certain nonprofit creditors and certain homeownership stabilization programs and a definition of a ''qualified mortgage'' for certain loans made and held in portfolio by small creditors (the 2013 ATR Concurrent Proposal). The Bureau expects to act on the 2013 ATR Concurrent Proposal on an expedited basis, so that any exceptions or adjustments to the 2013 ATR Final Rule can take effect simultaneously with that rule.
- *Escrows:* The Bureau is finalizing a rule, following a March 2011 proposal issued by the Board (the Board's 2011 Escrows Proposal),[9] to implement certain provisions of the Dodd-Frank Act expanding on existing rules that require escrow accounts to be established for higher-priced mortgage loans and creating an exemption for certain loans held by creditors operating predominantly in rural or underserved areas, pursuant to TILA section 129D as established by Dodd-Frank Act sections 1461. 15 U.S.C. 1639d. The Bureau's final rule is referred to as the 2013 Escrows Final Rule.
- *Servicing:* Following its August 2012 proposals (the 2012 RESPA Servicing Proposal and 2012 TILA Servicing Proposal),[10] the Bureau is adopting final rules to implement Dodd-Frank Act requirements regarding force-placed insurance, error resolution, information requests, and payment crediting, as well as requirements for mortgage loan periodic statements and adjustable-rate mortgage reset disclosures, pursuant to section 6 of RESPA and sections 128, 128A, 129F, and 129G of TILA, as amended or established by Dodd-Frank Act sections 1418, 1420, 1463, and 1464. 12 U.S.C. 2605; 15 U.S.C. 1638, 1638a, 1639f, and 1639g. The Bureau also is finalizing rules on early intervention for troubled and delinquent borrowers, and loss mitigation procedures, pursuant to the Bureau's authority under section 6 of RESPA, as amended by Dodd-Frank Act section 1463, to establish obligations for mortgage servicers that it finds to be appropriate to carry out the consumer protection purposes of RESPA, and its authority under section 19(a) of RESPA to prescribe rules necessary to achieve the purposes of RESPA. The Bureau's final rule under RESPA with respect to mortgage servicing also establishes requirements for general servicing standards policies and procedures and continuity of contact pursuant to its authority under section 19(a) of RESPA. The Bureau's final rules are referred to as the 2013 RESPA Servicing Final Rule and the 2013 TILA Servicing Final Rule, respectively.
- *Loan Originator Compensation:* Following its August 2012 proposal (the 2012 Loan Originator Proposal),[11] the Bureau is issuing a final rule to implement provisions of the Dodd-Frank Act requiring certain creditors and loan originators to meet certain duties of care, including qualification requirements; requiring the establishment of certain compliance procedures by depository institutions; prohibiting loan originators, creditors, and the affiliates of both from receiving compensation in various forms (including based on the terms of the transaction) and from sources other than the consumer, with specified exceptions; and establishing restrictions on mandatory arbitration and financing of single premium credit insurance, pursuant to TILA sections 129B and 129C as established by Dodd-Frank Act sections 1402, 1403, and 1414(a). 15 U.S.C. 1639b, 1639c. The Bureau's final rule is referred to as the 2013 Loan Originator Final Rule.
- *Appraisals:* The Bureau, jointly with other Federal agencies,[12] is issuing a final rule implementing Dodd-Frank Act requirements concerning appraisals for higher-risk mortgages, pursuant to TILA section 129H as established by Dodd-Frank Act section 1471. 15 U.S.C. 1639h. This rule follows the agencies' August 2012 joint proposal (the 2012 Interagency Appraisals Proposal).[13] The agencies' joint final rule is referred to as the 2013 Interagency Appraisals Final Rule. In addition, following its August 2012 proposal (the 2012 ECOA

[7] The Bureau's policy regarding ex parte communications can be found at *http://files.consumerfinance.gov/f/2011/08/Bulletin_20110819_ExPartePresentationsRulemakingProceedings.pdf.*

[8] 76 FR 27390 (May 11, 2011).

[9] 76 FR 11598 (Mar. 2, 2011).

[10] 77 FR 57200 (Sept. 17, 2012) (RESPA); 77 FR 57318 (Sept. 17, 2012) (TILA).

[11] 77 FR 55272 (Sept. 7, 2012).

[12] Specifically, the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the National Credit Union Administration, and the Federal Housing Finance Agency.

[13] 77 FR 54722 (Sept. 5, 2012).

Appraisals Proposal),[14] the Bureau is issuing a final rule to implement provisions of the Dodd-Frank Act requiring that creditors provide applicants with a free copy of written appraisals and valuations developed in connection with applications for loans secured by a first lien on a dwelling, pursuant to section 701(e) of the Equal Credit Opportunity Act (ECOA) as amended by Dodd-Frank Act section 1474. 15 U.S.C. 1691(e). The Bureau's final rule is referred to as the 2013 ECOA Appraisals Final Rule.

The Bureau is not at this time finalizing proposals concerning various disclosure requirements that were added by title XIV of the Dodd-Frank Act, integration of mortgage disclosures under TILA and RESPA, or a simpler, more inclusive definition of the finance charge for purposes of disclosures for closed-end credit transactions under Regulation Z. The Bureau expects to finalize these proposals and to consider whether to adjust regulatory thresholds under the Title XIV Rulemakings in connection with any change in the calculation of the finance charge later in 2013, after it has completed quantitative testing, and any additional qualitative testing deemed appropriate, of the forms that it proposed in July 2012 to combine TILA mortgage disclosures with the good faith estimate (RESPA GFE) and settlement statement (RESPA settlement statement) required under the Real Estate Settlement Procedures Act, pursuant to Dodd-Frank Act section 1032(f) and sections 4(a) of RESPA and 105(b) of TILA, as amended by Dodd-Frank Act sections 1098 and 1100A, respectively (the 2012 TILA–RESPA Proposal).[15] Accordingly, the Bureau already has issued a final rule delaying implementation of various affected title XIV disclosure provisions.[16] The Bureau's approaches to coordinating the implementation of the Title XIV Rulemakings and to the finance charge proposal are discussed in turn below.

Coordinated Implementation of Title XIV Rulemakings

As noted in all of its foregoing proposals, the Bureau regards each of the Title XIV Rulemakings as affecting aspects of the mortgage industry and its regulations. Accordingly, as noted in its proposals, the Bureau is coordinating carefully the Title XIV Rulemakings, particularly with respect to their effective dates. The Dodd-Frank Act requirements to be implemented by the Title XIV Rulemakings generally will take effect on January 21, 2013, unless final rules implementing those requirements are issued on or before that date and provide for a different effective date. *See* Dodd-Frank Act section 1400(c), 15 U.S.C. 1601 note. In addition, some of the Title XIV Rulemakings are to take effect no later than one year after they are issued. *Id.*

The comments on the appropriate implementation date for this final rule are discussed in detail below in part VI of this notice. In general, however, consumer advocates requested that the Bureau put the protections in the Title XIV Rulemakings into effect as soon as practicable. In contrast, the Bureau received some industry comments indicating that implementing so many new requirements at the same time would create a significant cumulative burden for creditors. In addition, many commenters also acknowledged the advantages of implementing multiple revisions to the regulations in a coordinated fashion.[17] Thus, a tension exists between coordinating the adoption of the Title XIV Rulemakings and facilitating industry's implementation of such a large set of new requirements. Some have suggested that the Bureau resolve this tension by adopting a sequenced implementation, while others have requested that the Bureau simply provide a longer implementation period for all of the final rules.

The Bureau recognizes that many of the new provisions will require creditors to make changes to automated systems and, further, that most administrators of large systems are reluctant to make too many changes to their systems at once. At the same time, however, the Bureau notes that the Dodd-Frank Act established virtually all of these changes to institutions' compliance responsibilities, and contemplated that they be implemented in a relatively short period of time. And, as already noted, the extent of interaction among many of the Title XIV Rulemakings necessitates that many of their provisions take effect together. Finally, notwithstanding commenters' expressed concerns for cumulative burden, the Bureau expects that creditors actually may realize some efficiencies from adapting their systems for compliance with multiple new, closely related requirements at once, especially if given sufficient overall time to do so.

Accordingly, the Bureau is requiring that, as a general matter, creditors and other affected persons begin complying with the final rules on January 10, 2014. As noted above, section 1400(c) of the Dodd-Frank Act requires that some provisions of the Title XIV Rulemakings take effect no later than one year after the Bureau issues them. Accordingly, the Bureau is establishing January 10, 2014, one year after issuance of the Bureau's 2013 ATR, Escrows, and HOEPA Final Rules (*i.e.,* the earliest of the title XIV final rules), as the baseline effective date for most of the Title XIV Rulemakings. The Bureau believes that, on balance, this approach will facilitate the implementation of the rules' overlapping provisions, while also affording creditors sufficient time to implement the more complex or resource-intensive new requirements.

The Bureau has identified certain rulemakings or selected aspects thereof, however, that do not present significant implementation burdens for industry. Accordingly, the Bureau is setting earlier effective dates for those final rules or certain aspects thereof, as applicable. Those effective dates are set forth and explained in the **Federal Register** notices for those final rules.

More Inclusive Finance Charge Proposal

As noted above, the Bureau proposed in the 2012 TILA–RESPA Proposal to make the definition of finance charge more inclusive, thus rendering the finance charge and annual percentage rate a more useful tool for consumers to compare the cost of credit across different alternatives. 77 FR 51116, 51143 (Aug. 23, 2012). Because the new definition would include additional costs that are not currently counted, it would cause the finance charges and APRs on many affected transactions to increase. This in turn could cause more such transactions to become subject to various compliance regimes under Regulation Z. Specifically, the finance charge is central to the calculation of a transaction's ''points and fees,'' which in turn has been (and remains) a coverage threshold for the special protections afforded ''high-cost mortgages'' under HOEPA. Points and fees also will be subject to a 3-percent

[14] 77 FR 50390 (Aug. 21, 2012).

[15] 77 FR 51116 (Aug. 23, 2012).

[16] 77 FR 70105 (Nov. 23, 2012).

[17] Of the several final rules being adopted under the Title XIV Rulemakings, six entail amendments to Regulation Z, with the only exceptions being the 2013 RESPA Servicing Final Rule (Regulation X) and the 2013 ECOA Appraisals Final Rule (Regulation B); the 2013 HOEPA Final Rule also amends Regulation X, in addition to Regulation Z. The six Regulation Z final rules involve numerous instances of intersecting provisions, either by cross-references to each other's provisions or by adopting parallel provisions. Thus, adopting some of those amendments without also adopting certain other, closely related provisions would create significant technical issues, *e.g.,* new provisions containing cross-references to other provisions that do not yet exist, which could undermine the ability of creditors and other parties subject to the rules to understand their obligations and implement appropriate systems changes in an integrated and efficient manner.

limit for purposes of determining whether a transaction is a ''qualified mortgage'' under the 2013 ATR Final Rule. Meanwhile, the APR serves as a coverage threshold for HOEPA protections as well as for certain protections afforded ''higher-priced mortgage loans'' under § 1026.35, including the mandatory escrow account requirements being amended by the 2013 Escrows Final Rule. Finally, because the 2013 Interagency Appraisals Final Rule uses the same APR-based coverage test as is used for identifying higher-priced mortgage loans, the APR affects that rulemaking as well. Thus, the proposed more inclusive finance charge would have had the indirect effect of increasing coverage under HOEPA and the escrow and appraisal requirements for higher-priced mortgage loans, as well as decreasing the number of transactions that may be qualified mortgages—even holding actual loan terms constant—simply because of the increase in calculated finance charges, and consequently APRs, for closed-end credit transactions generally.

As noted above, these expanded coverage consequences were not the intent of the more inclusive finance charge proposal. Accordingly, as discussed more extensively in the 2011 Escrows Proposal, the 2012 HOEPA Proposal, the Board's 2011 ATR Proposal, and the Interagency Appraisals Proposal, the Board and subsequently the Bureau (and other agencies) sought comment on certain adjustments to the affected regulatory thresholds to counteract this unintended effect. First, the Board and then the Bureau proposed to adopt a ''transaction coverage rate'' for use as the metric to determine coverage of these regimes in place of the APR. The transaction coverage rate would have been calculated solely for coverage determination purposes and would not have been disclosed to consumers, who still would have received only a disclosure of the expanded APR. The transaction coverage rate calculation would exclude from the prepaid finance charge all costs otherwise included for purposes of the APR calculation except charges retained by the creditor, any mortgage broker, or any affiliate of either. Similarly, the Board and Bureau proposed to reverse the effects of the more inclusive finance charge on the calculation of points and fees; the points and fees figure is calculated only as a HOEPA and qualified mortgage coverage metric and is not disclosed to consumers. The Bureau also sought comment on other potential mitigation measures, such as adjusting the numeric thresholds for particular compliance regimes to account for the general shift in affected transactions' APRs.

The Bureau's 2012 TILA–RESPA Proposal sought comment on whether to finalize the more inclusive finance charge proposal in conjunction with the Title XIV Rulemakings or with the rest of the TILA–RESPA Proposal concerning the integration of mortgage disclosure forms. 77 FR 51116, 51125 (Aug. 23, 2012). Upon additional consideration and review of comments received, the Bureau decided to defer a decision whether to adopt the more inclusive finance charge proposal and any related adjustments to regulatory thresholds until it later finalizes the TILA–RESPA Proposal. 77 FR 54843 (Sept. 6, 2012); 77 FR 54844 (Sept. 6, 2012).[18] Accordingly, the 2013 Escrows, HOEPA, ATR, and Interagency Appraisals Final Rules all are deferring any action on their respective proposed adjustments to regulatory thresholds.

IV. Legal Authority

The final rule was issued on January 10, 2013, in accordance with 12 CFR 1074.1. The Bureau issued this final rule pursuant to its authority under TILA, RESPA, and the Dodd-Frank Act. On July 21, 2011, section 1061 of the Dodd-Frank Act transferred to the Bureau the ''consumer financial protection functions'' previously vested in certain other Federal agencies, including the Board.[19] The term ''consumer financial protection function'' is defined to include ''all authority to prescribe rules or issue orders or guidelines pursuant to any Federal consumer financial law, including performing appropriate functions to promulgate and review such rules, orders, and guidelines.'' [20] TILA, HOEPA (which is codified as part of TILA), and RESPA are Federal consumer financial laws.[21] Accordingly, the Bureau has authority to issue regulations pursuant to TILA and RESPA, including the disclosure requirements added to those statutes by title XIV of the Dodd-Frank Act.

[18] These notices extended the comment period on the more inclusive finance charge and corresponding regulatory threshold adjustments under the 2012 TILA–RESPA and HOEPA Proposals. It did not change any other aspect of either proposal.

[19] Dodd-Frank Act section 1061(b), 12 U.S.C. 5581(b).

[20] 12 U.S.C. 5581(a)(1).

[21] Dodd-Frank Act section 1002(14), 12 U.S.C. 5481(14) (defining ''Federal consumer financial law'' to include the ''enumerated consumer laws'' and the provisions of title X of the Dodd-Frank Act); Dodd-Frank Act section 1002(12), 12 U.S.C. 5481(12) (defining ''enumerated consumer laws'' to include TILA, HOEPA, and RESPA).

A. RESPA

As amended by the Dodd-Frank Act, section 19(a) of RESPA, 12 U.S.C. 2617(a), authorizes the Bureau to prescribe such rules and regulations and to make such interpretations and grant such reasonable exemptions for classes of transactions as may be necessary to achieve the purposes of RESPA. One purpose of RESPA is to effect certain changes in the settlement process for residential real estate that will result in more effective advance disclosure to home buyers and sellers of settlement costs. RESPA section 2(b), 12 U.S.C. 2601(b). In addition, in enacting RESPA, Congress found that consumers are entitled to be ''provided with greater and more timely information on the nature and costs of the settlement process and [to be] protected from unnecessarily high settlement charges caused by certain abusive practices * * *.'' RESPA section 2(a), 12 U.S.C. 2601(a). In the past, section 19(a) has served as a broad source of authority to prescribe disclosures and substantive requirements to carry out the purposes of RESPA.

B. TILA

As amended by the Dodd-Frank Act, TILA section 105(a), 15 U.S.C. 1604(a), directs the Bureau to prescribe regulations to carry out the purposes of the TILA. Except with respect to the substantive restrictions on high-cost mortgages provided in TILA section 129, TILA section 105(a) authorizes the Bureau to prescribe regulations that may contain additional requirements, classifications, differentiations, or other provisions, and may provide for such adjustments and exceptions for all or any class of transactions, that the Bureau determines are necessary or proper to effectuate the purposes of TILA, to prevent circumvention or evasion thereof, or to facilitate compliance therewith. A purpose of TILA is ''to assure a meaningful disclosure of credit terms so that the consumer will be able to compare more readily the various credit terms available to him and avoid the uninformed use of credit.'' TILA section 102(a), 15 U.S.C. 1601(a). This stated purpose is tied to Congress's finding that ''economic stabilization would be enhanced and the competition among the various financial institutions and other firms engaged in the extension of consumer credit would be strengthened by the informed use of credit[.]'' TILA section 102(a). Thus, strengthened competition among financial institutions is a goal of TILA, achieved

through the effectuation of TILA's purposes.

Historically, TILA section 105(a) has served as a broad source of authority for rules that promote the informed use of credit through required disclosures and substantive regulation of certain practices. However, Dodd-Frank Act section 1100A clarified the Bureau's section 105(a) authority by amending that section to provide express authority to prescribe regulations that contain ''additional requirements'' that the Bureau finds are necessary or proper to effectuate the purposes of TILA, to prevent circumvention or evasion thereof, or to facilitate compliance. This amendment clarified the Bureau's authority under TILA section 105(a) to prescribe requirements beyond those specifically listed in the statute that meet the standards outlined in section 105(a). The Dodd-Frank Act also clarified the Bureau's rulemaking authority over high-cost mortgages pursuant to section 105(a). As amended by the Dodd-Frank Act, TILA section 105(a) grants the Bureau authority to make adjustments and exceptions to the requirements of TILA for all transactions subject to TILA, except with respect to the substantive provisions of TILA section 129 that apply to high-cost mortgages, as noted above. For the reasons discussed in this notice, the Bureau is proposing regulations to carry out TILA's purposes and is proposing such additional requirements, adjustments, and exceptions as, in the Bureau's judgment, are necessary and proper to carry out the purposes of TILA, prevent circumvention or evasion thereof, or to facilitate compliance.

Pursuant to TILA section 103(bb)(2), 15 U.S.C. 1602(bb)(2), the Bureau may prescribe regulations to adjust the statutory percentage points for the APR threshold to determine whether a transaction is covered as a high-cost mortgage, if the Bureau determines that such an increase or decrease is consistent with the statutory consumer protections for high-cost mortgages and is warranted by the need for credit. Under TILA section 103(bb)(4), the Bureau may adjust the definition of points and fees for purposes of that threshold to include such charges that the Bureau determines to be appropriate.

With respect to the high-cost mortgage provisions of TILA section 129, TILA section 129(p), 15 U.S.C. 1639(p), as amended by the Dodd-Frank Act, grants the Bureau authority to create exemptions to the restrictions on high-cost mortgages and to expand the protections that apply to high-cost mortgages. Under TILA section 129(p)(1), the Bureau may exempt specific mortgage products or categories from any or all of the prohibitions specified in TILA section 129(c) through (i),[22] if the Bureau finds that the exemption is in the interest of the borrowing public and will apply only to products that maintain and strengthen homeownership and equity protections.

TILA section 129(p)(2) grants the Bureau authority to prohibit acts or practices in connection with:

- Mortgage loans that the Bureau finds to be unfair, deceptive, or designed to evade the provisions of HOEPA; and
- Refinancing of mortgage loans the Bureau finds to be associated with abusive lending practices or that are otherwise not in the interest of the borrower.

The authority granted to the Bureau under TILA section 129(p)(2) is broad. The provision is not limited to acts or practices by creditors. TILA section 129(p)(2) authorizes protections against unfair or deceptive practices ''in connection with mortgage loans,'' and it authorizes protections against abusive practices ''in connection with * * * refinancing of mortgage loans.'' Thus, the Bureau's authority is not limited to regulating specific contractual terms of mortgage loan agreements; it extends to regulating mortgage loan-related practices generally, within the standards set forth in the statute. The Bureau notes that TILA does not set forth a standard for what is unfair or deceptive, but those terms have settled meanings under other Federal and State consumer protection laws. The Conference Report for HOEPA indicates that, in determining whether a practice in connection with mortgage loans is unfair or deceptive, the Bureau should look to the standards employed for interpreting State unfair and deceptive trade practices statutes and section 5(a) of the Federal Trade Commission Act, 15 U.S.C. 45(a).[23]

In addition, section 1433(e) of the Dodd-Frank Act created a new TILA section 129(u)(3), which authorizes the Bureau to implement pre-loan counseling requirements mandated by the Dodd-Frank Act for high-cost mortgages. Specifically, under TILA section 129(u)(3), the Bureau may prescribe regulations as the Bureau determines to be appropriate to implement TILA section 129(u)(1), which establishes the Dodd-Frank Act's pre-loan counseling requirement for high-cost mortgages.

C. The Dodd-Frank Act

Section 1405(b) of the Dodd-Frank Act provides that, ''[n]otwithstanding any other provision of [title XIV of the Dodd-Frank Act], in order to improve consumer awareness and understanding of transactions involving residential mortgage loans through the use of disclosures, the [Bureau] may, by rule, exempt from or modify disclosure requirements, in whole or in part, for any class of residential mortgage loans if the [Bureau] determines that such exemption or modification is in the interest of consumers and in the public interest.'' 15 U.S.C. 1601 note. Section 1401 of the Dodd-Frank Act, which added TILA section 103(cc), 15 U.S.C. 1602(cc), generally defines residential mortgage loan as any consumer credit transaction that is secured by a mortgage on a dwelling or on residential real property that includes a dwelling other than an open-end credit plan or an extension of credit secured by a consumer's interest in a timeshare plan. Notably, the authority granted by section 1405(b) applies to ''disclosure requirements'' generally, and is not limited to a specific statute or statutes. Accordingly, Dodd-Frank Act section 1405(b) is a broad source of authority to modify the disclosure requirements of both TILA and RESPA.

Section 1022(b)(1) of the Dodd-Frank Act authorizes the Bureau to prescribe rules ''as may be necessary or appropriate to enable the Bureau to administer and carry out the purposes and objectives of the Federal consumer financial laws, and to prevent evasions thereof.'' 12 U.S.C. 5512(b)(1). TILA, RESPA, and title X of the Dodd-Frank Act are Federal consumer financial laws. Accordingly, the Bureau is exercising its authority under Dodd-Frank Act section 1022(b)(1) to prescribe rules that carry out the purposes and objectives of TILA and title X and prevent evasion of those laws.

For the reasons discussed below in the section-by-section analysis, the Bureau is finalizing regulations pursuant to its authority under TILA, RESPA, and titles X and XIV of the Dodd-Frank Act.

[22] The referenced provisions of TILA section 129 are: (c) (No prepayment penalty); (d) (Limitations after default); (e) (No balloon payments); (f) (No negative amortization); (g) (No prepaid payments); (h) (Prohibition on extending credit without regard to payment ability of consumer); and (i) (Requirements for payments under home improvement contracts).

[23] H. Conf. Rept. 103–652, at 162 (1994).

V. Section-by-Section Analysis

A. Regulation X

Section 1024.20 List of Homeownership Counseling Organizations

The Dodd-Frank Act amended RESPA to create a new requirement that lenders provide a list of homeownership counselors to applicants for federally related mortgage loans. Specifically, section 1450 the Dodd-Frank Act amended RESPA section 5(c) to require lenders to provide applicants with a ''reasonably complete or updated list of homeownership counselors who are certified pursuant to section 106(e) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x(e)) and located in the area of the lender.'' [24]

The list of homeownership counselors is to be included with a ''home buying information booklet'' that the Bureau is directed to prepare ''to help consumers applying for federally related mortgage loans to understand the nature and costs of real estate settlement services.'' [25] Prior to the Dodd-Frank Act, HUD was charged with distributing the RESPA ''special information booklet'' to lenders to help purchase-money mortgage borrowers understand the nature and costs of real estate settlement services. The Dodd-Frank Act amended RESPA section 5(a) to direct the Bureau to distribute the ''home buying information booklet'' to all lenders that make federally related mortgage loans. The Dodd-Frank Act also amended section 5(a) to require the Bureau to distribute lists of homeownership counselors to such lenders.

The proposal would have implemented the Dodd-Frank Act's requirement that a lender provide lists of homeownership counselors to applicants for federally related mortgage loans. Proposed § 1024.20 generally would have required a lender to provide an applicant for a federally related mortgage loan with a list of five homeownership counselors or counseling organizations in the location of the applicant, not later than three days after receiving an application. Proposed § 1024.20 also would have set forth additional requirements related to the content and delivery of the list. The Bureau is finalizing proposed § 1024.20 with certain changes, as discussed in further detail below.

20(a) Provision of List

20(a)(1)

Scope of Requirement

As noted above, new RESPA section 5(c) requires lenders to include a list of homeownership counselors located in the area of the lender with the home buying information booklet that is to be distributed to applicants. To implement RESPA section 5(c), the Bureau proposed in § 1024.20(a)(1) that the list of homeownership counselors or counseling agencies be provided to applicants for all federally related mortgage loans, except for Home Equity Conversion Mortgages (HECMs), as discussed in the section-by-section analysis of § 1024.20(c) below. Under RESPA and its implementing regulations, a federally related mortgage loan includes purchase-money mortgage loans, subordinate-lien mortgages, refinancings, closed-end home-equity mortgage loans, HELOCs, and reverse mortgages.[26] Thus, proposed § 1024.20(a)(1) would have required that lenders provide the list of homeownership counselors to applicants for numerous types of federally related mortgage loans beyond purchase-money mortgages.

As the Bureau noted in the preamble of the proposal, based on its reading of section 5 of RESPA as amended, and its understanding of the purposes of that section, the Bureau believes that the amendments to RESPA indicate that Congress intended the booklet and list of counselors to be provided to applicants for all federally related mortgage loans and not just purchase-money mortgage loans. The Bureau acknowledged that section 5(d) of RESPA, in language that was not amended by the Dodd-Frank Act, requires lenders to provide the home buying information booklet ''to each person from whom [the lender] receives or for whom it prepares a written application to borrow money to finance the purchase of residential real estate.'' However, the Bureau also noted that RESPA sections 5(a) and (b), as amended, indicate that the booklet and list of counselors are to be provided to applicants for all federally related mortgage loans. Section 5(a) as amended (1) specifically references helping consumers applying for federally related mortgage loans understand the nature and costs of real estate settlement services; and (2) directs the Bureau to distribute the booklet and the lists of housing counselors to lenders that make federally related mortgage loans. Moreover, the prescribed content of the booklet is not limited to information on purchase-money mortgages. Under RESPA section 5(b), as amended by the Dodd-Frank Act, the booklet must include information specific to refinancings and HELOCs, as well as ''the costs incident to a real estate settlement or a federally related mortgage loan.''

Additionally, the Bureau noted in the preamble of the proposal its view that a trained counselor can be useful to any consumer considering any type of mortgage loan. Mortgage transactions beyond purchase-money transactions, such as refinancings and open-end home-secured credit transactions, can entail significant risks and costs for consumers—risks and costs that a trained homeownership counselor can assist consumers in fully understanding.

Thus, for the reasons noted above, the Bureau proposed in § 1024.20(a)(1) to interpret the scope of the homeownership counselor list requirement to apply to all federally related mortgage loans pursuant to section 19(a) of RESPA, which provides the Bureau with the authority to ''prescribe such rules and regulations, to make such interpretations, and to grant such reasonable exemptions for classes of transactions, as may be necessary to achieve the purposes of the [RESPA].''

The Bureau sought comment from the public on the costs and benefits of the provision of the list of homeownership counselors to applicants for refinancings and HELOCs. The Bureau also sought comment on the potential effect of the Bureau's proposal on access to homeownership counseling generally by consumers, and the effect of increased consumer demand on existing counseling resources. In particular, the Bureau solicited comment on the effect on counseling resources of providing the list beyond applicants for purchase-money mortgages.

A number of industry commenters stated that lenders should not be required to provide counselor lists to applicants for refinancings or HELOCs. One large bank commenter, for example, asserted that the congressional intent to limit the requirement to purchase-

[24] Section 106(e) of the Housing and Urban Development Act of 1968, 12 U.S.C. 1701x(e), requires that homeownership counseling provided under programs administered by HUD can only be provided by organizations or individuals certified by HUD as competent to provide homeownership counseling. Section 106(e) also requires HUD to establish standards and procedures for testing and certifying counselors.

[25] The Dodd-Frank Act also amends RESPA section 5(b), 12 U.S.C. 2604(b), to require that the ''home buying information booklet'' (the RESPA ''special information booklet,'' prior to the Dodd-Frank Act), include ''[i]nformation about homeownership counseling services made available pursuant to section 106(a)(4) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x(a)(4)), a recommendation that the consumer use such services, and notification that a list of certified providers of homeownership counseling in the area, and their contact information, is available.''

[26] 12 U.S.C. 2602(1); 12 CFR 1024.2.

money mortgages is clear. Some other commenters were concerned that applicants for refinancings or HELOCs would either ignore the list or be offended by the suggestion that they would benefit from counseling, because such applicants already understand how mortgages work. Comments from consumer groups and a State Attorney General's office, however, supported the requirement to provide the counselor list to applicants for refinancings and HELOCs. Such commenters noted, for example, that consumers may find themselves in financial distress only after tapping into their home equity through a refinancing or a HELOC, in some cases repeatedly.

The Bureau is generally finalizing in § 1024.20(a)(1) the requirement to provide a list of counseling providers to applicants of federally related mortgage loans as proposed, for the reasons noted above. The Bureau continues to believe that the statutory language as a whole indicates Congress's intent to require lenders to provide the counselor list to applicants of refinancings and HELOCs, as well as purchase-money mortgages. Moreover, the Bureau agrees with commenters that suggest applicants for refinancings or HELOCs may benefit from information about counseling, even though such applicants have previously obtained a mortgage. The Bureau is, however, also adopting certain exemptions from the requirement, as described in the discussion of § 1024.20(c) below.

Content of List

As discussed above, RESPA section 5(c) requires that the list of homeownership counselors be comprised of homeownership counselors certified pursuant to section 106(e) of the Housing and Urban Development Act of 1968 and located in the area of the lender. RESPA section 5(c) does not specify any particular information about homeownership counselors that must be provided on the required list. Proposed § 1024.20(a)(1) would have provided that the list include five homeownership counselors or homeownership counseling organizations located in the zip code of the applicant's current address or, if there were not the requisite five counselors or counseling organizations in that zip code, counselors or organizations within the zip code or zip codes closest to the loan applicant's current address. Proposed § 1024.20(a)(2) would have required lenders to include in the list only homeownership counselors or counseling organizations from either the most current list of homeownership counselors or counseling organizations made available by the Bureau for use by lenders in complying with § 1024.20, or the most current list maintained by HUD of homeownership counselors or counseling organizations certified or otherwise approved by HUD. Proposed § 1024.20(a)(3) would have required that the list include: (1) Each counselor's or counseling organization's name, business address, telephone number and, if available from the Bureau or HUD, other contact information; and (2) contact information for the Bureau and HUD.

The Bureau stated in the preamble of the proposal that it expected to develop a Web site portal to facilitate compliance with the counselor list requirement. As the Bureau explained, such a Web site portal would allow lenders to type in the loan applicant's zip code to generate the requisite list, which could then be printed for distribution to the loan applicant. The Bureau also stated its belief that such an approach: (1) Could significantly mitigate any paperwork burden associated with requiring that the list be distributed to applicants for federally related mortgage loans; and (2) is consistent with the Dodd-Frank Act's amendment to section 5(a) of RESPA requiring the Bureau to distribute to lenders ''lists, organized by location, of homeownership counselors certified under section 106(e) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x(e)) for use in complying with the requirement under [section 5(c)].''

The Bureau solicited comment on the appropriate number of counselors or organizations to be included on the list and on whether there should be a limitation on the number of counselors from the same counseling agency. The Bureau also solicited comment on whether its planned Web site portal would be useful and whether there are other mechanisms through which the Bureau can help facilitate compliance and provide lists to lenders and consumers.

A significant number of industry commenters objected to the proposed requirement to create individualized lists for borrowers as overly burdensome. Some commenters raised concerns that having to create these individualized lists would expose them to risk in the event of an error in compiling the list. Many industry commenters suggested that lenders should instead be permitted to comply with the requirement by providing Bureau and HUD contact information for the consumer to obtain information about counselors. Other commenters suggested it would be more beneficial to refer consumers to web databases containing all counselors in a state, or to provide a list based on an applicant's state rather than zip code. Commenters argued that changing the provision to allow compliance through a static list would minimize costs, create greater efficiency, and be more accurate. Some commenters argued that locating the nearest zip code to a consumer's home zip code would be overly burdensome. Several commenters objected to the requirement that the list be obtained from ''the most current'' lists of counselors or counseling organizations maintained by the Bureau or HUD, or suggested that ''most current'' should mean ''monthly.'' A number of consumer group commenters, however, supported the requirement for an individualized list because such a list would be most beneficial to consumers. One such commenter also noted that requiring lenders to retrieve a fresh list for each applicant will ensure the lists received by consumers are the most up-to-date.

Industry commenters were generally very supportive of the Bureau's intention to create a Web site portal to facilitate compliance, particularly if the individualized list requirement were retained. Some industry commenters noted that the list requirement would not be difficult to comply with as proposed, if a Web site portal were available. A few commenters, while primarily supportive of a requirement to provide a static rather than an individualized list, alternatively favored the idea of the Web site portal to generate the list (including automatically selecting adjacent zip codes to an applicant's zip code, if necessary). Some commenters requested a safe harbor for lenders providing a list generated through the Web site portal. Commenters proposed a number of additions or variations to the Web site portal. A number of industry commenters stated the Bureau should provide lenders with the option to import the data from the Web site portal directly into their systems, to ease compliance burden. Several industry commenters noted it would be essential that the Web site portal generate a list for lenders based on a simple zip code query. A few commenters suggested that the Web site portal should provide a randomized list in response to a zip code query, to avoid favoritism. Some commenters suggested the Web site portal should be made available to the public and publicized by the Bureau (*e.g.,* though a public campaign in coordination with homeownership

counseling organizations, counseling trade groups, and HUD), and that lenders should be required to make lists available through their Web sites, branch offices, and mortgage advertising. Several commenters stated that the Bureau should coordinate the development of its Web site portal with HUD, so lenders are not required to search two separate databases.

A number of industry commenters raised concerns about the requirement to provide a list of five counselors or counseling agencies, asserting that five is an arbitrary number and that it would be a difficult requirement to meet in certain geographic locations. Some commenters noted, for example, that Alaska has only three counseling agencies statewide, and that Wyoming has only four. One commenter suggested that lenders should not have to disclose counselors from different states, if there are not five counselors in the consumer's state. A few commenters suggested that the requirement be more flexible and require, for example, a list of ''no fewer than three'' counseling agencies.

Several consumer advocacy and housing counselor advocacy groups commented that only homeownership counseling agencies, rather than individual homeownership counselors, should be permitted to appear on the list. These commenters noted that providing a list of individual counselors to consumers is neither practical nor efficient, as an individual counselor may not be available. A few commenters suggested that the list include agencies offering remote counseling services. For example, an alliance of counseling organizations suggested the list be required to include a minimum number of national counseling agencies or intermediaries [27] outside of a consumer's zip code that can provide phone counseling.

Several consumer advocacy and housing counselor advocacy commenters requested that additional information be required to be provided on the list. For example, they asked that the lists be required to include a counseling agency's specialty (*e.g.,* pre-purchase, refinance, home equity, rental, reverse mortgage, etc.) and any foreign language capacity. Another commenter requested that the list include a description of the services that the counselor would provide and fees typically charged for such services.

Based on the comments received concerning compliance burden and the potential operational difficulties associated with developing lists as envisioned in the proposal, the Bureau is revising § 1024.20(a)(1) to require lenders to fulfill the list obligation through use of either a Bureau Web site or data made available by the Bureau or HUD. Specifically, final § 1024.20(a)(1) allows lenders to distribute lists of counseling organizations providing relevant counseling services in the applicant's location that are obtained up to 30 days in advance from either a Web site maintained by the Bureau or data made available by the Bureau or HUD for lenders to use in complying with the requirements of § 1024.20, provided that the data are used in accordance with instructions provided with the data. Because lenders will thus generate the required lists through either a Web site that will automatically provide the required content of the list based on certain inputs, or through data that is accompanied by instructions to generate lists consistent with the Web site, the final rule also eliminates proposed § 1024.20(a)(1)(i) and (ii) and proposed § 1024.20(a)(2) and (3) as unnecessary.

The Bureau intends to create a Web site portal, in close coordination with HUD, that will require lenders to input certain required information (such as, for example, the applicant's zip code and the type of mortgage product) in order to generate a list of homeownership counseling organizations that provide relevant counseling services in the loan applicant's location. While the Bureau understands the concerns raised by commenters about the burden of generating zip-code based lists for potential borrowers, the Bureau notes that the statutory requirement indicates that the list should be comprised of counselors ''located in the area of the lender.'' The Bureau is interpreting this requirement to mean the location of the applicant who is being served by the lender. The Bureau continues to believe that a list of counseling resources available near the applicant's location will be most useful to the applicant.[28] The Bureau also believes that permitting lists to be generated based on larger geographic areas, such as an applicant's state, would frequently result in an applicant receiving a list that is overwhelmingly lengthy. The Bureau notes, for example, that HUD's Web site indicates that there are a significant number of states that are served by well over 20 homeownership counseling organizations. The Bureau notes, moreover, that the Web site portal will obviate the need for a lender to determine the closest zip codes to an applicant.

The Bureau recognizes the concerns of industry commenters that requiring greater data inputs from lenders to generate a list will increase the burden on the lender. The Bureau intends to require as few data inputs as practicable to generate a relevant list for the applicant, in order to minimize compliance burden. The Bureau agrees with commenters that the Web site portal it develops should be made directly available to consumers, and the Bureau does intend to publicize the Web site portal to make consumers better aware of the counseling resources available.

The Bureau also agrees with commenters who suggested the list should include only homeownership counseling organizations rather than individual counselors. The Bureau explained in the preamble of the proposal that it was proposing to allow the list to include counselors or counseling organizations certified or otherwise approved by HUD, pursuant to its exemption authority under section 19(a) of RESPA and its modification authority under section 1405(b) of the Dodd-Frank Act. The Bureau is finalizing § 1024.20(a)(1) to require that the list contain only counseling organizations, pursuant to the same exemption authority, and anticipates that the Web site portal it develops may generate lists that include counseling organizations that are either certified or otherwise approved by HUD.[29] Because

[27] National intermediary organizations generally provide funding, training, and oversight of affiliated local counseling agencies, but may also provide counseling services directly to consumers. Christopher E. Herbert et al., Abt Assoc. Inc., *The State of the Housing Counseling Industry,* at xi, 2 (U.S. Dep't of Hous. & Urban Dev. 2008).

[28] The Bureau also relies on its exemption and modification authority under RESPA section 19(a) and the Dodd-Frank Act section 1405(b). The Bureau believes that interpreting ''located in the area of the lender'' to mean the location of the applicant who is being served by the lender will help facilitate the effective functioning of this new RESPA disclosure. It will also, therefore, help carry out the purposes of RESPA for more effective advance cost disclosures for consumers, by providing information to loan applicants regarding counseling resources available for assisting them in understanding their prospective mortgage loans and settlement costs. In addition, because the Bureau believes that lists organized by the location of the applicant will be most useful to the applicants, the Bureau believes this interpretation is in the interest of consumers and in the public interest.

[29] As the Bureau noted in the preamble of the proposal, the Bureau understands that HUD, other than for its counseling program for HECMs, currently only approves homeownership counseling agencies, rather than certifying these agencies or individual counselors, as it has not yet implemented section 1445 of the Dodd-Frank Act regarding certification of counseling providers. The Bureau also notes that permitting the list to include individual counselors could cause confusion for consumers, as an individual counselor may be

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the Web site portal will automatically create lists that include the relevant homeownership counseling organizations, the Bureau is not finalizing proposed § 1024.20(a)(2).

The Bureau believes that allowing lenders to obtain the list up to 30 days prior to providing it to the loan applicant strikes an appropriate balance between ensuring the information received by consumers is useful, and avoiding unnecessary burdens on lenders. The Bureau notes a lender may be able to keep counselor lists generated based on certain data inputs on file, and provide those stored lists to applicants as appropriate for up to 30 days, in order to avoid generating a new list for each applicant.

With respect to the information that will appear on the lists of counseling organizations, the Bureau notes that rather than specify particular information, such as the counseling organization's telephone number, that must appear on the list through regulation, the Bureau will design its Web site portal so that the appropriate information will automatically appear on the lists that are generated. The Bureau will also work to ensure that any data provided for compliance with the requirement is accompanied by instructions that will result in the creation of a list that is consistent with what would have been generated if the Web site portal had been used. Accordingly, the Bureau is not finalizing proposed § 1024.20(a)(3). The Bureau believes this will help ease compliance burden. The Bureau anticipates that the lists generated through its Web site portal or in accordance with its instructions will include contact information for the counseling organizations and may include additional information about the counseling organizations such as language capacity and areas of expertise. The Bureau also anticipates that the lists generated through its Web site portal will also include information enabling the consumer to access either the Bureau or the HUD list of homeownership counseling organizations, so that an applicant who receives the list can obtain information about additional counseling organizations if desired.

Timing of the List

As discussed above, RESPA section 5(c) requires that the list be included with the home buying information booklet that is to be distributed to applicants no later than three business days after the lender receives a loan application. Proposed § 1024.20(a)(1) would have required a lender to provide the list no later than three business days after the lender, mortgage broker, or dealer receives an application (or information sufficient to complete an application). The definition of ''application'' that would have applied appears in § 1024.2(b). The Bureau noted in the proposal that its 2012 TILA–RESPA Proposal proposed to adopt a new definition of ''application'' under Regulation Z, and it sought comment on whether to tie the provision of the list to this proposed definition instead of the definition in § 1024.2(b). Some industry commenters asked for greater flexibility with respect to the timing of the list requirement, so that a list could be provided later than three business days after the lender receives a loan application. A few consumer groups and a counseling association commenter objected to the timing of the list requirement on the basis that counseling should occur earlier in the shopping process, not at application. The Bureau received one comment in support of linking the timing requirement for the list with the good faith estimate required by RESPA. A few commenters noted that regardless of whether the list had to be provided at the same time as the RESPA good faith estimate, it should only have to be provided once per loan, even if a loan estimate had to be revised.

The Bureau believes that the counselor list should be provided no later than the same time period as other applicable disclosures, in order to be most beneficial to consumers. The Bureau agrees with consumer group commenters that obtaining information about counseling at a point earlier than application could be beneficial to consumers. The Bureau notes, however, that the statutory requirement provides that the list of homeownership counselors be provided with the home buying booklet. The Bureau agrees with commenters that stated a lender should only be required to provide a single list in conjunction with an application, and notes that the final rule does not require that more than one list be provided. In addition, because the Bureau has not yet finalized the 2012 TILA–RESPA Proposal, the Bureau declines to provide a different definition of application in the final rule. The Bureau is therefore finalizing the timing requirement in § 1024.20(a)(1) as proposed, consistent with the timing requirement of the booklet.

20(a)(2)

RESPA section 5(c) does not specify whether the required list of homeownership counselors can be combined with other disclosures. To afford lenders flexibility and ease compliance burden, proposed § 1024.20(a)(4) would have allowed the list to be combined with other mortgage loan disclosures, unless otherwise prohibited. The Bureau did not receive any comments addressing this provision, and is finalizing it substantially as proposed, except that it is renumbering the provision as § 1024.20(a)(2).

20(a)(3)

Under RESPA section 5(c), a lender must provide a list of homeownership counselors to an applicant. To afford flexibility and help ease compliance burden, proposed § 1024.20(a)(5) would have allowed a mortgage broker or dealer to provide the list to those applicants from whom it receives or for whom it prepares applications. Under proposed § 1024.20(a)(5), where a mortgage broker or dealer provides the list, the lender is not required to provide an additional list but remains responsible for ensuring that the list has been provided to the loan applicant and satisfies the requirements of proposed § 1024.20.

The Bureau received one comment objecting to the language that a mortgage broker or dealer ''may'' provide the list to a loan applicant from whom it receives for whom it prepares an application. This commenter suggested that this language be changed to ''must,'' to reflect that mortgage brokers and dealers are required to provide the list to their loan applicants.

As discussed above however, under the language of proposed § 1024.20(a)(5) the lender would have been responsible for ensuring that the list of counseling organizations is provided to the loan applicant in accordance with the requirements of § 1024.20(a)(5). As a result, the provision would have required that a loan applicant receive

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unavailable. The Bureau is therefore exercising its exemption and modification authority under RESPA section 19(a) and the Dodd-Frank Act section 1405(b) to provide flexibility in order to facilitate the availability of competent counseling organizations for placement on the lists, so that counseling organizations that are either approved or certified by HUD may appear on the lists. Permitting the list to include HUD-approved or HUD-certified counseling organizations will help facilitate the effective functioning of this new RESPA disclosure. It will also, therefore, help carry out the purposes of RESPA for more effective advance cost disclosures for consumers, by providing information to loan applicants regarding counseling resources available for assisting them in understanding their prospective mortgage loans and settlement costs. The Bureau intends to work closely with HUD to facilitate operational coordination and consistency between the counseling and certification requirements HUD puts into place and the lists generated by the Bureau's Web site portal.

the list, with the lender maintaining ultimate responsibility for ensuring that it is provided, regardless of who provides the list. Accordingly, the Bureau is finalizing proposed § 1024.20(a)(5) substantially as proposed, except that it is renumbering the provision as § 1024.20(a)(3).

20(a)(4)

RESPA section 5(c) does not specify how the required list must be delivered. Proposed § 1024.20(a)(6) would have set out the requirements for providing the list to the loan applicant, *i.e.,* in person, by mail, or by other means of delivery. As proposed, the list could have been provided to the loan applicant in electronic form, subject to the consumer consent and other applicable provisions of the Electronic Signatures in Global and National Commerce Act (E-Sign Act), 15 U.S.C. 7001 *et seq.*

A few industry commenters asserted that because the list requirement permits electronic delivery under the E-Sign Act, the list should not be referred to as ''written.'' One consumer group commenter encouraged the Bureau to remove language permitting the electronic delivery of disclosures, arguing that this could lead to a greater chance the disclosure would not be received (*e.g.,* if the lender used the incorrect email address).

The Bureau does not believe that the requirement that the list be ''written'' conflicts with the provisions relating to delivery in electronic form pursuant to the E-Sign Act. In fact, the E-Sign Act itself specifically provides that the use of an electronic record to provide information can satisfy a requirement that certain information required to be made available to a consumer be provided in writing, subject to consumer consent provisions.[30] Moreover, the Bureau believes it is important to retain the requirement that the list be in writing to provide for a retainable copy of the counseling organization names and contact information. In addition, the Bureau notes that permitting the electronic delivery of the disclosure is consistent with existing § 1024.23 of Regulation X, which provides for the applicability of the E-Sign Act to RESPA. For these reasons, the Bureau is finalizing § 1024.20(a)(6) substantially as proposed, but is renumbering it as § 1024.20(a)(4) for organizational purposes.

20(a)(5)

Proposed § 1024.20(a)(7) would have provided that the lender is not required to provide the list if, before the end of the three business day period, the lender denies the loan application or the loan applicant withdraws the application. The Bureau did not receive any comments addressing this provision. The Bureau is therefore finalizing § 1024.20(a)(7) substantially as proposed, but is renumbering it as § 1024.20(a)(5).

20(a)(6)

Proposed § 1024.20(a)(8) would have provided flexibility related to the requirements for providing the list when there are multiple lenders and multiple applicants in a mortgage loan transaction. Under proposed § 1024.20(a)(8), if a mortgage loan transaction involved more than one lender, only one list was to be given to the loan applicant, and the lenders were to agree among themselves which lender would provide the list. Proposed § 1024.20(a)(8) also would have provided that if there were more than one loan applicant, the required list could be provided to any loan applicant that would have primary liability on the loan obligation.

Industry commenters stated that it should be permissible for multiple lenders to provide the list for operational convenience. The Bureau notes that proposed § 1024.20(a)(8) is consistent with Regulation Z § 1026.31(e), which also addresses disclosure requirements in the case of multiple creditors. The Bureau believes this consistency is appropriate, and that it could be confusing for consumers to receive multiple copies of a counselor list disclosure. Accordingly, the Bureau is finalizing § 1024.20(a)(8) as proposed, except for making minor edits for clarity and consistency and renumbering the provision as § 1024.20(a)(6).

20(b) Open-End Lines of Credit (Home-Equity Plans) Under Regulation Z

As noted above, RESPA section 5(c) requires that the list be included with the home buying information booklet that is to be distributed to applicants no later than three business days after the lender receives a loan application, and the Bureau proposed in § 1024.20(a)(1) to interpret the scope of the homeownership counselor list requirement to apply to all federally related loans, including HELOCs (except as described in the discussion of § 1024.20(c) below). Proposed § 1024.20(b) would have permitted a lender or broker, for an open-end credit plan subject to the requirements of § 1024.20, to comply with the timing and delivery requirement of either § 1024.20(a), or with the timing and delivery requirements set out in Regulation Z § 1026.40(b) for open-end disclosures. Several commenters noted that they appreciated this flexibility and asked the Bureau to retain this approach in the final rule. The Bureau agrees with commenters that the flexibility to provide the list under the timing requirements of § 1026.40(b) should be retained. The Bureau believes allowing this flexibility in timing will meet the purposes of the list requirement as well as help ease compliance burden. The Bureau is therefore adopting § 1024.20(b) as proposed, with minor edits for clarity and consistency.

20(c) Exemptions

20(c)(1) Reverse Mortgage Transactions

RESPA section 5(c) requires lenders to include a list of homeownership counselors with the home buying information booklet that is to be distributed to applicants. As noted above, the Bureau generally proposed in § 1024.20(a)(1) to interpret the scope of the homeownership counselor list requirement to apply to applicants of all federally related mortgage loans pursuant to section 19(a) of RESPA. Proposed § 1024.20(c) would have exempted a lender from providing an applicant for a HECM, as that type of reverse mortgage is defined in 12 U.S.C. 1715z–20(b)(3), with the list required by § 1024.20 if the lender is otherwise required by HUD to provide a list, and does provide a list, of HECM counselors or counseling agencies to the loan applicant. As discussed further below in the section-by-section analysis of Regulation Z, § 1026.34(a)(5), the Bureau's final pre-loan counseling requirement for high-cost mortgages, Federal law currently requires homeowners to receive counseling before obtaining a HECM reverse mortgage insured by the Federal Housing Administration (FHA),[31] which is a part of HUD. HUD imposes various requirements related to HECM counseling, including requiring FHA-approved HECM mortgagees to provide HECM applicants with a list of HUD-approved HECM counseling agencies. The Bureau noted in the preamble of the proposal its concern that a duplicative list requirement could cause confusion for consumers and unnecessary burden for lenders. Accordingly, the Bureau proposed to exercise its exemption authority under RESPA section 19(a) to allow lenders that provide a list under HUD's HECM program to satisfy the requirements of § 1024.20.

[30] 15 U.S.C. 7001(c).

[31] 12 U.S.C. 1715z–20(d)(2)(B).

A trade association for the reverse mortgage industry argued that lenders should not be obligated to provide a counselor list to applicants for HECM mortgages through § 1024.20. This commenter stated that HECM lenders are already required to provide a lengthier list of counselors specializing in reverse mortgage counseling. The commenter pointed out that in most instances a HECM lender cannot even complete a HECM application until they receive a HECM counseling certificate, except in limited circumstances under which HECM applicants can waive counseling requirements (*e.g.,* for some types of refinancings from a HECM to another HECM). The commenter also argued that lenders should not have to provide applicants for non-HECM reverse mortgages the counseling list if the lender meets the HECM counseling disclosure requirements.

The Bureau agrees that lenders should not have to provide a list of counselors to HECM applicants because the list is of limited value for such applicants, given that the majority of such applicants would already have been required to receive counseling prior to submitting an application for a HECM. In addition, upon further consideration, the Bureau believes that lenders should not have to provide applicants for any reverse mortgages subject to Regulation Z § 1026.33(a) with a list of housing counselors. Given that counseling for HECMs and other reverse mortgages is typically provided by specially trained counselors, the Bureau believes that any additional counseling requirements related to these products would be better addressed separately. As noted above, HECM mortgagees are already required to provide HECM applicants with a list of HUD-approved HECM counseling agencies. The Bureau notes that it anticipates undertaking a rulemaking in the future to address how title XIV requirements apply to reverse mortgages and to consider other consumer protection issues in the reverse mortgage market.[32] That rulemaking will provide an opportunity to consider further issues related to counseling or counseling information on reverse mortgages. Because the Bureau concludes that requiring lenders to provide a list of counselors to reverse mortgage borrowers under § 1024.20 is largely duplicative of HECM requirements and may not provide additional, useful information for borrowers of other types of reverse mortgages, final § 1024.20(c)(1) provides an exemption for reverse mortgages pursuant to the Bureau's authority under RESPA section 19(a).

20(c)(2) Timeshare Plans

The Bureau generally proposed in § 1024.20(a)(1) to interpret the scope of the homeownership counselor list requirement to apply to applicants of all federally related loans pursuant to section 19(a) of RESPA, which would include applicants for a mortgage secured by a consumer's interest in a timeshare. The Bureau did not propose any type of exemption from the list requirement for this category of applicants. Timeshare industry commenters argued that the requirement for a list of counselors should not apply to lenders receiving an application for a mortgage secured by a consumer's interest in a timeshare. They asserted an exception is warranted for mortgages secured by timeshares because of their belief that there was no Congressional intent to require counseling for timeshare buyers due to unique characteristics of the timeshare industry, the lack of predatory lending in this market, the lower risk to consumers associated with default of a mortgage secured by a timeshare,[33] the protections provided by State law, and the timeshare business model that relies upon purchase and financing documents being executed simultaneously.

The Bureau agrees that lenders should not be obligated to provide a list of homeownership counselors to applicants for mortgages secured by a timeshare, and is therefore exercising its authority under section 19(a) of RESPA to provide an exemption for these transactions in final § 1024.20(c)(2). Although the Bureau believes that some form of counseling may be beneficial to such consumers, the Bureau is concerned that counselors at counseling agencies approved by HUD to counsel consumers on standard mortgage financing may not be trained to provide useful counseling addressing timeshare purchases. For that reason, the Bureau is concerned that the benefit of the list of counselors to a consumer purchasing a timeshare could be quite low. The Bureau has therefore determined that exempting timeshare purchases from the list requirement is reasonable, because it is unclear whether the list would provide helpful information to consumers. Accordingly, the final rule does not require a lender to provide an applicant for a mortgage loan secured by a timeshare, as described under 11 U.S.C. 101(53D), with the list of homeownership counseling organizations required under § 1024.20.

B. Regulation Z

Section 1026.1 Authority, Purpose, Coverage, Organization, Enforcement, and Liability

1(d) Organization

1(d)(5)

Section 1026.1(d)(5) describes the organization of subpart E of Regulation Z, which contains special rules for mortgage transactions, including high-cost mortgages. The Bureau would have revised § 1026.1(d)(5) for consistency with the Bureau's proposed amendments to §§ 1026.32 and 1026.34 for high-cost mortgages. Specifically, the Bureau proposed to revise § 1026.1(d)(5) to include the term ''open-end credit plan'' and to remove the term ''closed-end'' where appropriate. In addition, the Bureau proposed to include a reference to the new prepayment penalty coverage test for high-cost mortgages added by the Dodd-Frank Act. The Bureau did not receive any comments on proposed § 1026.1(d)(5) and is finalizing the provision as proposed, with one non-substantive change to reflect the Dodd-Frank Act's adoption of the term ''high-cost mortgage'' to refer to a transaction that meets any of the coverage tests set forth in § 1026.32(a).

Section 1026.31 General Rules

31(c) Timing of Disclosure

31(c)(1) Disclosures for High-Cost Mortgages

Since the enactment of the original HOEPA legislation in 1994, TILA section 129(a) has set forth the information that creditors must provide in the additional disclosure for high-cost mortgages, and TILA section 129(b) has described the timing requirements for this disclosure. Specifically, under TILA section 129(b)(1), the disclosure must be provided not less than three business days prior to consummation of the transaction. Pursuant to TILA section 129(b)(2)(A), if the terms of the transaction change after the disclosures have been provided in a way that makes the disclosure inaccurate, then a new disclosure must be given. TILA section 129(b)(2)(B) provides that such new disclosures may be given by telephone if the consumer initiated the change and if, at consummation, the new disclosure is provided in writing and the consumer and creditor certify that the telephone disclosure was given at least three days

[32] Consumer Financial Protection Bureau, Reverse Mortgage Report, at 10–11 (June 2012), *available at http://files.consumerfinance.gov/a/assets/documents/201206_cfpb_Reverse_Mortgage_Report.pdf.*

[33] Commenters stated that typically if a consumer defaults, the only consequence is that the consumer loses the timeshare interest.

before consummation. TILA section 129(b)(2)(C) permitted the Board (now the Bureau) to prescribe regulations authorizing the modification or waiver of rights under TILA section 129(b) if such modification was necessary to permit consumers to meet a bona fide financial emergency.

TILA section 129(b) is implemented in existing § 1026.31(c)(1). Section 1026.31(c)(1) provides that the high-cost mortgage disclosure shall be provided at least three business days prior to consummation, and § 1026.31(c)(1)(i) sets forth the general rule for providing a new disclosure in the case of a change in terms. Section 1026.31(c)(1)(ii) permits the new disclosure for a change in terms to be provided by telephone in certain circumstances, and § 1026.31(c)(1)(iii) sets forth the conditions pursuant to which a consumer is permitted to modify or waive the three-day waiting period for a disclosure for a bona fide personal financial emergency.

The Dodd-Frank Act did not amend TILA section 129(b)(2) concerning the timing requirements for high-cost mortgage disclosures, except to clarify that authority under TILA section 129(b)(2)(C) to permit a modification or waiver of rights for bona fide personal financial emergencies transferred from the Board to the Bureau. The Bureau thus proposed only limited revisions to § 1026.31(c)(1) and related commentary that would have reflected the expanded types of loans potentially subject to HOEPA coverage as a result of the Dodd-Frank Act. For example, the proposal would have included the term ''account opening'' in addition to ''consummation'' to reflect the fact that the Dodd-Frank Act expanded the requirements for high-cost mortgages to HELOCs.

The Bureau received one comment concerning proposed § 1026.31(c)(1). The commenter, a consumer advocacy organization, urged the Bureau to eliminate the language in § 1026.31(c)(1)(ii) permitting telephone disclosures when a consumer initiates a change in the transaction after the creditor has provided the high-cost mortgage disclosure, and that change results in different terms. The commenter argued that permitting telephone disclosures would encourage sloppiness and inconsistency in the delivery of information and argued that the consumer would not be able to remember the information conveyed. As noted above, § 1026.31(c)(1)(ii) permitting telephone disclosures in the case of a change in terms implements a long-existing provision of TILA. The Bureau would need to use its authority under TILA section 105(a) to remove this provision. Given that the Dodd-Frank Act neither removed nor revised this provision, the Bureau declines to make such a change at this time. With respect to the commenter's specific concerns, the Bureau notes that § 1026.31(c)(1)(ii) requires a written disclosure at consummation or account opening that reflects any changed terms, along with a certification by the consumer and creditor that telephone disclosures reflecting those terms were made at the appropriate time prior to consummation or account opening.

The commenter similarly urged the Bureau to eliminate the language in § 1026.31(c)(1)(iii) permitting the consumer to modify the three-day waiting period for a bona fide personal financial emergency. The commenter stated that the urgency for financing for some consumers should not supplant protections for other consumers. The Bureau declines to remove or amend § 1026.31(c)(1)(iii). The Board prescribed § 1026.31(c)(1)(iii) pursuant to its authority under TILA section 129(b)(2)(C) when it first implemented HOEPA by final rule in 1995.[34] The Bureau understands that there may be concerns about creditors abusing the waiver provision in certain circumstances, however the Bureau believes that the provision may benefit consumers who, for example, are facing imminent foreclosure. Absent specific information indicating that a change is warranted, the Bureau declines to modify this long-standing provision. The Bureau thus finalizes its amendments to § 1026.31(c)(1) generally as proposed (*i.e.,* to reflect the provision's expanded application to HELOCs), with only minor revisions for clarity.

In addition, the Bureau is revising comment 31(c)(1)(i)–2 for clarification purposes and consistency with final § 1026.34(a)(10). Upon further consideration of these provisions, the Bureau recognizes that the prohibition of financing points and fees in § 1026.34(a)(10) prohibits the financing of any points and fees, as defined in § 1026.32(b)(1) and (2), for all high-cost mortgages. This prohibition includes the financing of premiums or other charges for the optional products such as credit insurance described in proposed comment 31(c)(1)(i)–2. Section 1026.34(a)(10) permits, however, the financing of charges not included in the definition of points and fees. For example, § 1026.34(a)(10) permits the financing of bona fide third-party charges, such as fees charged by a third-party counselor in connection with the consumer's receipt of pre-loan counseling for a high-cost mortgage under § 1025.34(a)(5). Accordingly, proposed comment 31(c)(1)(i)–2 is revised for clarification purposes and consistency with these other provisions.

31(h) Corrections and Unintentional Violations.

Section 1433(f) of the Dodd-Frank Act added new section 129(v) to TILA, 15 U.S.C. 1639(v), which prescribes certain conditions under which a creditor or assignee of a high-cost mortgage that has failed to comply with a HOEPA requirement, despite acting in good faith, will not be deemed to have violated the requirement. Section 129(v) permits the creditor or assignee to use this provision when either of the two following sets of conditions is satisfied: (1) ''Within 30 days of the loan closing and prior to the institution of any action, the consumer is notified of or discovers the violation, appropriate restitution is made, and whatever adjustments are necessary are made to the loan to either, at the choice of the consumer—(A) make the loan satisfy the requirements of this chapter; or (B) in the case of a high-cost mortgage, change the terms of the loan in a manner beneficial to the consumer so that the loan will no longer be a high-cost mortgage''; or (2) ''within 60 days of the creditor's discovery or receipt of notification of an unintentional violation or bona fide error and prior to the institution of any action, the consumer is notified of the compliance failure, appropriate restitution is made, and whatever adjustments are necessary are made to the loan to either, at the choice of the consumer—(A) make the loan satisfy the requirements of this chapter; or (B) in the case of a high-cost mortgage, change the terms of the loan in a manner beneficial so that the loan will no longer be a high-cost mortgage.'' [35] The Bureau did not propose to issue regulatory guidance concerning this provision. The Bureau solicited comment on the extent to which creditors or assignees are likely to invoke this provision; whether regulatory guidance would be useful; and if so, what issues would be most important to address.

The Bureau did not receive comments from industry suggesting that creditors or assignees would be likely to invoke the provision. However, the Bureau received a number of comments from industry and consumer groups that suggested the Bureau provide guidance on certain statutory terms. Both industry

[34] *See* 60 FR 15463, 15464–65 (Mar. 24, 1995).

[35] 15 U.S.C. 1639(v).

and consumer groups asked for a definition of the statutory term ''good faith'' and also sought guidance on whether the statutory requirement that notice of an unintentional error be given ''prior to the institution of any action'' applies only to lawsuits initiated by the consumer, or should be construed more broadly to include enforcement actions and various types of informal disputes between the borrower and creditor. Consumer groups also sought guidance and clarification as to how a creditor's use of the statute to correct an unintentional violation will interplay with TILA rescission rights.[36]

In addition, both industry and consumer groups sought guidance on the operation of the 30- and 60-day periods set forth in sections 129(v)(1) and (2), respectively. These commenters expressed concern that the statute, as drafted, could be interpreted to require a creditor or assignee seeking the benefit of section 129(v) to provide notice to the consumer, receive the election of the consumer's preferred adjustment, and implement the consumer's election within the 30- or 60-day period. Industry and consumer groups stated that such a timeframe would be unworkable, and industry commenters suggested this would result in creditors and assignees not using the provision.

Both industry and consumer groups offered suggestions for a more workable operational framework. Specifically, industry commenters suggested that the 30- and 60-day time limits should refer only to the time in which the creditor or assignee must notify the consumer about the violation, but additional time should be afforded for the creditor to offer a choice of adjustments to the consumer, for the consumer to elect an adjustment, and the creditor to implement the consumer's elected adjustment. Consumer groups also noted that a consumer may need substantial time to consider a creditor's proposed adjustment in order to make an informed choice, and generally suggested that an additional 30 to 60 days from the time of notice be given to consumers to make an election of adjustment. Similarly, industry commenters suggested an additional time period of 30 to 60 days be afforded to the creditor or assignee to implement the consumer's elected adjustment and pay any restitution that may be appropriate.

The Bureau recognizes that section 129(v) is a complex provision, and agrees with public commenters that several of the features and terms of the provision are ambiguous. However, it is not yet clear what role section 129(v) will play in HOEPA's scheme of regulation, particularly in light of the Dodd-Frank Act's comprehensive amendments to HOEPA, and the lack of comments from industry suggesting that creditors or assignees will be likely to invoke this provision. The Bureau therefore declines at this point to issue detailed interpretive guidance regarding section 129(v).

However, the Bureau agrees with industry and consumer groups that it is important to clarify how the 30- and 60-day periods operate. Comments suggested that implementing the consumer's choice of adjustment—which may require the creditor or assignee to make changes to the documentation, disclosure, or terms of a transaction—may itself take more than 30 days. It is thus not feasible to require creditors and assignees invoking the provision to also provide notice of the violation to the consumer and allow the consumer appropriate time to consider and elect an adjustment and to provide notice of that election to the creditor within that same 30 or 60 day period.

The Bureau is adopting a new provision at § 1026.31(h) and accompanying comment 31(h)–1 interpreting section 129(v) to address these issues. Section 1026.31(h) states that a creditor or assignee in a high-cost mortgage who, when acting in good faith, failed to comply with a requirement under section 129 of the Act will not be deemed to have violated such requirement if the creditor or assignee satisfies specified conditions. Those conditions include providing notice to the consumer within 30 or 60 days (as appropriate) of the prescribed triggering conditions and implementing the consumer's chosen adjustments and providing appropriate restitution within a reasonable time.

In adopting new provision § 1026.31(h), the Bureau is interpreting the language of section 129(v) to provide greater clarity with respect to these timeframes, which will assist creditors, assignees, and consumers seeking to use section 129(v). In the Bureau's view, section 129(v) is ambiguous regarding whether the ''within 30 [or 60] days'' timing requirement encompasses all the events that must occur for a creditor or assignee to claim the provision's benefit—including the implementation of the consumer's choice of adjustment—or only the first step, the consumer's notification or discovery of the violation. The Bureau believes Congress's intent was to make it possible, under appropriate circumstances, for creditors and assignees to satisfy the conditions of section 129(v). If securing the protection of section 129(v) required a creditor or assignee to complete within 30 or 60 days tasks that cannot reasonably be done in that time, creditors or assignees might never seek to use the provision. The Bureau thus believes that, to effectuate Congress's intent, section 129(v) should be interpreted, if possible, so that creditors and assignees can feasibly meet its conditions. The Bureau agrees with industry and consumer groups that it would be unworkable for a creditor to complete within 30 or 60 days all the steps to qualify for section 129(v) relief. Accordingly, the Bureau interprets the language of section 129(v) to mean that the 30- and 60-day statutory periods set forth the timeframe for providing notice of the violation to the consumer, but does not also require that the consumer elect an adjustment and that the creditor or assignee implement that adjustment, along with appropriate restitution, within the same timeframe.

With respect to the remaining statutory conditions—the consumer's election of an adjustment, the creditor or assignee's implementation of that adjustment, and the creditor or assignee's paying of any appropriate restitution—the Bureau believes that Congress intended this provision to encourage creditors and assignees who have acted in good faith to remediate their violations of HOEPA, and that additional time is necessary for them to do so.

However, the Bureau stresses that, for a creditor or assignee to enjoy the benefit of section 129(v), the required adjustment must still be completed in a reasonable time. While the Bureau interprets the specified 30- or 60-day period to cover only notice of a violation to the consumer, the Bureau does not believe Congress intended to allow the remaining steps in section 129(v) to take an arbitrarily long time. The Bureau believes Congress intended a creditor or assignee to make the appropriate restitution and complete the required section 129(v) modification within a reasonable time period.[37] In the Bureau's view, allowing a reasonable time for a creditor or assignee to carry out the steps necessary to benefit from section 129(v) would effectuate Congress's purpose of encouraging creditors and assignees who have acted

[36] *See* 15 U.S.C. 1635 and 1639(n).

[37] When a statute is silent about how long a given action may take, Congress may be understood to have implicitly required the action to be completed in a reasonable time. *See* Norman J. Singer & J.D. Shambie Singer, 2B Sutherland Statutes and Statutory Construction, § 55.3 (7th ed.) (''If a statute imposes a duty but is silent as to when it is to be performed, a reasonable time is implied.'').

in good faith to remediate their violations of HOEPA. If a creditor could take any amount of time to fulfill the section 129(v) conditions, the creditor might wait without completing the required modification unless and until it faced liability for its violation.

Section 1026.31(h) reflects this interpretation by requiring both appropriate restitution and the required adjustments to a loan to be completed within a reasonable time. What length of time is reasonable may depend on the circumstances, including the nature of the violation at stake. The Bureau therefore declines to provide detailed guidance on what periods would be reasonable. However, as the accompanying new comment 31(h)–1 notes, the Bureau generally regards 30 days after the consumer sends notice of the chosen adjustment as reasonable.

Comment 31(h)–1 also provides a clarifying interpretation of the notice and election procedures. Section 129(v) is also ambiguous as to how consumers are to be notified that they have a choice of remedy and how they are to inform creditors of their choice. The Bureau believes that Congress intended for consumers to have a reasonable opportunity to make a choice under section 129(v). In the Bureau's view, this purpose is effectuated by interpreting section 129(v) to require a creditor or assignee to provide adequate notice of the choices available to the consumer. Specifically, comment 31(h)–1 notes that the initial notice sent to the consumer should be in writing, should offer the consumer the proposed adjustments, and should state the time within which the consumer must choose an adjustment. Comment 31(h)–1 further explains that the Bureau regards 60 days as generally sufficient to provide adequate notice of the consumer's right to make an election.

Finally, the Bureau is clarifying in § 1026.31(h) and its accompanying commentary certain statutory terminology for consistency with existing Regulation Z terminology, and to reflect the Dodd-Frank Act's expansion of loans potentially subject to HOEPA coverage to include open-end credit plans. Thus, § 1026.31(h) and its accompanying commentary use the terms ''consummation or account opening'' and ''loan or credit plan'' to clarify that § 1026.31(h) applies to both closed-end and open-end credit.

Section 1026.32 Requirements for High-Cost Mortgages

32(a) Coverage

32(a)(1)

Prior to the Dodd-Frank Act, the statutory protections for high cost mortgages generally were limited to closed-end refinancings and home-equity mortgage loans with APRs or points and fees that exceeded the thresholds prescribed by TILA section 103(aa), as implemented by existing § 1026.32(a)(1). The Dodd-Frank Act expanded HOEPA's coverage by providing in TILA section 103(bb)(1) that the term ''high-cost mortgage'' means any consumer credit transaction that is secured by the consumer's principal dwelling, other than a reverse mortgage transaction, if any of the prescribed high-cost mortgage thresholds are met. As discussed in the section-by-section analysis of § 1026.32(a)(1)(i) through (iii), below, the Dodd-Frank Act adjusted HOEPA's existing APR and points and fees thresholds and added a third HOEPA coverage test based on a transaction's prepayment penalties.

The proposal would have revised § 1026.32(a)(1) to implement TILA's amended definition of ''high-cost mortgage'' by removing the coverage exclusions for residential mortgage transactions (*i.e.,* purchase-money mortgage loans) and HELOCs while retaining the exclusion of reverse mortgage transactions. Specifically, the proposal would have defined ''high-cost mortgage'' in § 1026.32(a)(1) to mean any consumer credit transaction, other than a reverse mortgage transaction as defined in § 1026.33(a), that is secured by the consumer's principal dwelling and in which any one of the high-cost APR, points and fees, or prepayment penalty coverage tests is met. Proposed comment 32(a)(1)–1 would have clarified that a high-cost mortgage includes both a closed- and open-end credit transaction secured by the consumer's principal dwelling. The comment also would have clarified that, for purposes of determining coverage under § 1026.32, an open-end credit transaction is limited to account opening; an individual advance of funds or a draw on the credit line subsequent to account opening does not constitute a ''transaction'' for this purpose. As noted in the proposal, the Bureau believes that such a clarification is needed to permit creditors to determine whether a HELOC is a high-cost mortgage once (*i.e.,* at account opening), rather than having to evaluate the HELOC for high-cost mortgage coverage each time the consumer draws on the credit line.

The Bureau received numerous comments concerning the proposed expanded scope of loan types covered by HOEPA. The Bureau addresses those coverage-related comments in the section-by-section analysis of § 1026.32(a)(2) below. One commenter expressed an overall concern that the Bureau is not coordinating its 2013 HOEPA Final Rule with the implementation of other title XIV provisions, and suggested that HOEPA's protections were not necessary given these other provisions. As discussed in Part III of this preamble, the Bureau is carefully coordinating its rules. The Bureau notes that the Dodd-Frank Act's amendments to HOEPA are self-effectuating in the absence of regulations.

The Bureau received no comments concerning other aspects of proposed § 1026.32(a)(1) or comment 32(a)(1)–1 and adopts them generally as proposed, except that the Bureau retains for organizational purposes the existing structure of § 1026.32(a)(1), including its cross-reference to § 1026.32(a)(2) for exemptions from HOEPA coverage.

32(a)(1)(i)

Prior to the Dodd-Frank Act, TILA section 103(aa)(1)(A) provided that a transaction was covered by HOEPA if the APR at consummation of the transaction would exceed by more than 10 percentage points the yield on Treasury securities having comparable periods of maturity (measured as of the fifteenth day of the month immediately preceding the month in which the application for the extension of credit was received by the creditor). Pursuant to its authority under TILA section 103(aa)(2) (re-designated by the Dodd-Frank Act as section 103(bb)(2)), the Board in 2001 lowered the APR threshold for first-lien transactions to 8 percentage points above the yield on comparable Treasury securities and retained the higher APR threshold of 10 percentage points above the yield on comparable Treasury securities for subordinate-lien transactions, thus creating a two-tiered APR test for HOEPA coverage.[38] The APR thresholds are implemented in existing § 1026.32(a)(1)(i).

TILA section 103(bb)(1)(A)(i), as added by section 1431 of the Dodd-Frank Act, essentially codifies the two-tiered APR test for HOEPA coverage adopted by the Board in 2001, with certain changes. Specifically, TILA section 103(bb)(1)(A)(i):

[38] 66 FR 65604, 65617 (Dec. 20, 2001).

• Changes the APR benchmark from the yield on comparable Treasury securities to the ''average prime offer rate,'' as defined in TILA section 129C(b)(2)(B);

• Revises the percentage-point thresholds for first- and subordinate-lien transactions; and

• Creates a separate, higher percentage-point threshold for smaller-dollar-amount, first-lien transactions secured by personal property.

These changes, as implemented by the final rule, are discussed below, following a discussion of (1) the Bureau's proposal to use the ''transaction coverage rate'' as an alternative to the APR for purposes of determining HOEPA coverage under § 1026.32(a)(1)(i), and (2) general comments concerning the use of the APR for testing for HOEPA coverage.

Annual Percentage Rate versus Transaction Coverage Rate

The Bureau proposed two alternatives in proposed § 1026.32(a)(1)(i) to implement the revised APR thresholds for HOEPA coverage under TILA section 103(bb)(1)(A)(i). Alternative 1 would have used the APR as the metric to be compared to the average prime offer rate for determining HOEPA coverage for both closed- and open-end credit transactions. Alternative 2 would have been substantially identical to Alternative 1, but it would have substituted a ''transaction coverage rate'' for the APR as the metric to be compared to the average prime offer rate for closed-end credit transactions. The Bureau proposed Alternative 2 in connection with the Bureau's 2012 TILA–RESPA Integration Proposal, which would have broadened the general definition of finance charge for closed-end transactions under Regulation Z.[39] In its HOEPA proposal, the Bureau solicited comment on whether to adopt Alternative 1 or Alternative 2 for closed-end transactions. The Bureau also noted that it would not adopt Alternative 2 if it did not change the definition of finance charge in connection with the 2012 TILA–RESPA Integration Proposal. Proposed comment 32(a)(1)(i)–1 would have clarified how to determine the ''transaction coverage rate'' for closed-end transactions if Alternative 2 were adopted.

As discussed in part II above, in August 2012, the Bureau extended the notice-and-comment period for comments relating to the proposed adoption of the more inclusive finance charge, including related aspects of the HOEPA proposal such as the transaction coverage rate. At that time, the Bureau noted that it would not be finalizing the more inclusive finance charge in January 2013.[40] The Bureau therefore does not address in this rulemaking the numerous public comments that it received concerning the proposed alternatives for the APR coverage test. The Bureau instead will address such comments in connection with its finalization of the 2012 TILA–RESPA Integration Proposal, thus resolving that issue together with the Bureau's determination whether to adopt the more inclusive finance charge. The final rule thus adopts Alternative 1 (*i.e.,* use of APR) in § 1026.32(a)(1)(i).

Use of the Annual Percentage Rate for HOEPA Coverage

The Bureau received several comments generally discussing the use of the APR for determining HOEPA coverage. One State housing finance authority commenter suggested that the Bureau replace the APR-based coverage test for both closed- and open-end transactions with a simpler, interest rate-based test that would be easier to explain to consumers and would eliminate regional variations due to closing charges. Given that TILA clearly contemplates an APR-based coverage test for determining the applicability of HOEPA protections, as well as other types of special protections, the Bureau declines to adopt an interest rate-based test for high-cost mortgages in this rulemaking.[41]

The Bureau also declines to adopt in the final rule, as suggested by one consumer advocacy commenter, a requirement that non-interest finance charge items be included in the APR calculation for HELOCs for purposes of determining HOEPA coverage. As noted, the Dodd-Frank Act expanded HOEPA coverage to HELOCs in TILA section 103(bb)(1)(A). In doing so, Congress did not set forth any special standards for applying the APR coverage test to open-end credit. Under the HOEPA proposal, HELOC creditors thus would have tested HELOCs for HOEPA coverage by using the standard APR that creditors calculate for HELOC disclosures. Specifically, unlike for closed-end transactions, where the APR reflects costs other than interest, HELOC APRs include only interest.[42] One consumer group commenter urged the Bureau to make the APR coverage test more consistent between closed- and open-end credit by adopting a more inclusive APR calculation for HELOCs. The commenter argued that, under the Bureau's proposal, a creditor could impose astronomical closing costs on a HELOC without meeting the APR coverage test, because such charges are not included in the APR calculation for HELOCs. The commenter expressed concern that the difference in the APR calculation for HELOCs versus closed-end transactions will unduly encourage creditors to steer consumers toward HELOCs, and particularly to HELOCs with excessively high closing costs.

The Bureau acknowledges that Regulation Z requires a different calculation of APR for closed-end transactions (interest rate plus other charges) than for HELOCs (interest rate only) for disclosure purposes. Using these existing APRs for HOEPA coverage necessarily means that non-interest charges will be reflected in the APR for closed-end, but not for open-end, transactions. The Bureau declines at this time, however, to adopt a different APR for HELOCs. First, the Bureau notes that creditors have been required to use the (interest rate) APR for HELOC disclosures for more than twenty years, and this APR is consistent with the APR used for other open-end credit.[43] Moreover, notwithstanding the commenter's concern, the Bureau believes that the HOEPA points and fees coverage test should constrain HELOC creditors from imposing excessively high closing costs. As discussed in the section-by-section analysis of § 1026.32(b)(2) below, the final rule adopts a points and fees definition that is the same in all material respects for closed- and open-end credit. Finally, the Bureau believes that introducing a new APR calculation for HELOC creditors solely for determining HOEPA coverage could impose additional compliance costs that would need to be carefully

[39] *See* 77 FR 49091, 49100–03 (Aug. 15, 2012) (discussing the transaction coverage rate).

[40] *See* 77 FR 54843 (Sept. 6, 2012) (discussing the TILA–RESPA Integration Proposal); 77 FR 54844 (Sept. 6, 2012) (discussing the HOEPA Proposal).

[41] *See* TILA sections 129C(a)(6)(D)(ii) and 129C(c)(1)(B)(ii) (ability-to-repay and qualified mortgage requirements), 129D(b)(3) (escrow requirements), and 129H(f)(2) (appraisal requirements).

[42] TILA section 128(a)(3) and (4) requires disclosure of the finance charge and the finance charge expressed as an ''annual percentage rate,'' for which the interest rate (along with other items in the finance charge) is a factor in the calculation. *See* § 1026.18(d) and (e). TILA section 127A(a), in contrast, provides that HELOC creditors must disclose the annual percentage rate along with a statement that the rate does not include costs other than interest. Thus, pursuant to §§ 1026.14(b) and .40, the APR to be disclosed for a HELOC—as for other types of open-end credit—is the periodic rate multiplied by the number of periods in a year under § 1026.40.

[43] *See, e.g.,* 54 FR 24670 (June 9, 1989) (adopting HELOC disclosure rules to implement the Home Equity Loan Consumer Protection Act of 1988); § 1026.14(b).

analyzed. Thus, the Bureau believes that comments concerning the disparity between the APR for closed- and open-end credit transactions are better considered as part of a broader reevaluation of the HELOC provisions of Regulation Z, rather than in the context of this rulemaking to implement section 1431 of the Dodd-Frank Act.[44]

Average Prime Offer Rate as Benchmark

As noted above, the Dodd-Frank Act amended HOEPA by changing the benchmark against which the APR must be measured to determine HOEPA coverage from the yield on comparable Treasury securities to the average prime offer rate, defined in TILA section 129C(b)(2)(B) to mean the average prime offer rate for a comparable transaction as of the date on which the interest rate for the transaction is set, as published by the Bureau. TILA section 129C(b)(2)(B) essentially codifies the definition of average prime offer rate adopted by the Board in its 2008 HOEPA Final Rule and implemented in § 1026.35.[45]

Section 1026.35 prohibits certain acts or practices in connection with higher-priced mortgage loans. Higher-priced mortgage loans, in contrast to high-cost mortgages, are closed-end credit transactions with APRs that, in general, exceed the average prime offer rate for a comparable transaction as of the date the interest rate for the transaction is set by more than 1.5 or 3.5 percentage points for first- and subordinate-lien transactions, respectively.[46]

Section 1026.35(a)(2) provides that the average prime offer rate means an APR that is derived from the average interest rates, points and ''other loan pricing terms'' currently offered to consumers by a representative sample of creditors for fixed- and variable-rate closed-end credit transactions with low-risk pricing characteristics. Section 1026.35(a)(2) also indicates that a table with the average prime offer rates for a broad range of types of closed-end credit transactions is published on the internet and updated at least weekly. Existing comments 35(a)(2)–1 through –4 provide further details concerning the calculation and use of the average prime offer rate.[47] In relevant part:

- Comment 35(a)(2)–1 states that data reported in the Freddie Mac Primary Mortgage Market Survey® (PMMS) is used to calculate the average prime offer rates reported in the internet table.[48] For variable-rate transactions, the ''other loan pricing terms'' (*i.e.,* other than interest rates and points) that are used to calculate the average prime offer rates include commonly used indices, margins, and initial fixed-rate periods.
- Comment 35(a)(2)–2 notes that the published average prime offer rate tables indicate how to identify a ''comparable transaction'' for purposes of calculating the APR to average prime offer rate spread that is required to determine higher-priced mortgage loan coverage under § 1026.35.[49]
- Comment 35(a)(2)–3 provides that, for purposes of determining higher-priced mortgage loan coverage under § 1026.35, a transaction's APR is compared to the average prime offer rate as of the date the transaction's interest rate is set (or ''locked'') before consummation. The comment specifies that if a creditor sets the interest rate initially and then sets it at a different level before consummation, the creditor should use the last date the interest rate is set before consummation.
- Comment 35(a)(2)–4 restates that the average prime offer rate tables, along with the methodology for calculating average prime offer rates, are published on the internet.

Proposed § 1026.32(a)(1)(i) would have implemented the change in the benchmark for HOEPA's APR coverage test from the yield on comparable Treasury securities to the average prime offer rate. Proposed comment 32(a)(1)(i)–2 would have clarified that creditors should determine the applicable average prime offer rate for closed-end transactions for purposes of § 1026.32(a)(1)(i) pursuant to the same guidance set forth in § 1026.35(a)(2) and commentary thereto. Proposed comment 32(a)(1)(i)–3 would have provided additional guidance for using the methodology set forth in § 1026.35(a)(2) to determine the applicable average prime offer rate for HELOCs. The Bureau believes that additional guidance for HELOCs is warranted because, as discussed in the preamble to the proposal, the average prime offer rate currently is calculated only for closed-end transactions. The Bureau is not aware of any publicly available and authoritative surveys of pricing data for HELOCs from which to calculate a separate average prime offer rate for open-end credit.[50] Proposed comment 32(a)(1)(i)–3 therefore would have instructed creditors to test HELOCs for HOEPA coverage by comparing the HELOC's APR (calculated in accordance with proposed § 1026.32(a)(2)[51]) to the average prime offer rate for ''the most closely comparable closed-end loan'' based on applicable loan characteristics and other loan pricing terms. Proposed comment 32(a)(1)(i)–3 would have provided illustrative examples to facilitate compliance.

The proposal explained why the Bureau believes that it is reasonable to require HELOC creditors to use the average prime offer rate for the most closely-comparable closed-end loan when determining HELOC coverage. The Bureau noted its belief that market

[44] In this regard, the Bureau notes that it has inherited from the Board a proposal to amend the requirements for HELOC disclosures under current § 1026.40 (§ 226.5b in the Board's proposal). *See* 74 FR 43428 (Aug. 26, 2009). The Bureau anticipates finalizing the Board's proposal in the future.

[45] *See* 73 FR 44522, 44534–36 (July 30, 2008).

[46] Existing § 1026.35 contains repayment ability requirements and other restrictions for higher-priced mortgage loans. The Bureau's 2013 ATR Final Rule is removing those requirements in connection with its implementation in § 1026.43 of the Dodd-Frank Act's ability-to-repay and qualified mortgage provisions. However, § 1026.35 is being retained for escrow- and appraisal-related requirements for higher-priced mortgage loans, which are being implemented in the Bureau's 2013 Escrows Final Rule and the 2013 interagency appraisals rulemaking, respectively.

[47] In proposing to cross-reference Regulation Z's existing guidance for average prime offer rates relating to higher-priced mortgage loans, the HOEPA proposal noted that Regulation Z's existing comments 35(a)(2)–1 through –4 likely would be renumbered as comments 35(a)(2)(ii)–1 through –4 for organizational purposes if and when the Bureau adopted the transaction coverage rate in § 1026.35 in connection with a more inclusive finance charge definition. As discussed, the Bureau has postponed action with respect to the proposed more inclusive finance charge. However, as described in connection with the Bureau's 2013 Escrows Final Rule, the Bureau is renumbering existing commentary to § 1026.35 concerning the average prime offer rate for other reasons. The cross-references in commentary to § 1026.32(a)(2) in this final rule reflect the numbering that is being adopted in the 2013 Escrows Final Rule, rather than the numbering of existing commentary to section 1026.35.

[48] The PMMS contains pricing data for four types of closed-end transactions: one-year ARM, 5/1 ARM, 30-year fixed-rate, and 15-year fixed-rate. The pricing data for those transactions is used to estimate average prime offer rates for the other fixed- and variable-rate loan products listed in the internet table.

[49] The referenced guidance is available at *http://www.ffiec.gov/ratespread.* The first factor to consider in determining a ''comparable transaction'' is whether the transaction under consideration is fixed-rate or variable-rate. (One table contains average prime offer rates for fixed-rate transactions, and one table contains average prime offer rates for variable-rate transactions.) The other information necessary for determining the most comparable transaction is (1) the date that the interest rate for the transaction was set; and (2) the term of the transaction. In the case of a fixed-rate transaction, the term is the transaction's term to maturity. In the case of a variable-rate transaction, the term is the initial fixed-rate period, rounded to the nearest number of whole years (or, if the initial fixed-rate period is less than one year, the term is one year).

[50] As already noted, the methodology for deriving the average prime offer rate is based on Freddie Mac's Primary Mortgage Market Survey®, which does not provide any data on HELOCs. More detailed discussions of the average prime offer rate is provided in the Board's 2008 HOEPA Final Rule and other publicly-available sources. *See* 73 FR 44522, 44533–36 (July 30, 2008); *http://www.ffiec.gov/ratespread/default.aspx.*

[51] Section 1026.32(a)(3) as adopted in the final rule was proposed as § 1026.32(a)(2).

rates for HELOCs generally are based on a prime lending rate, such as the average prime rate as published in the Wall Street Journal.[52] When the Bureau compared the prime rate published by the Board over a 12-year period to average prime offer rates for annually-adjusting, closed-end credit transactions (*i.e.,* one-year adjustable rate mortgages (ARMs)) for the same period, the Bureau found that the rates generally were comparable. Thus, the Bureau believes that using the average prime offer rate for the most closely-comparable closed-end loan is a reasonable benchmark for HOEPA's APR test for HELOCs. The Bureau further believes that requiring HELOC creditors to use this benchmark will facilitate compliance because HELOC creditors may use existing rate-spread calculators on the FFIEC's Web site to determine HOEPA coverage. Finally, the Bureau believes that requiring HELOC creditors to use the closed-end, average prime offer rate tables is appropriate under TILA section 103(bb)(1)(A)(i), which requires a comparison of a mortgage transaction's APR to the average prime offer rate without distinguishing between closed- and open-end credit. The Bureau nevertheless solicited data or comment on all aspects of determining the average prime offer rate for HELOCs. In particular, the Bureau solicited comment on whether a benchmark other than the average prime offer rate for the most closely-comparable closed-end loan would better meet the objectives of HOEPA's APR coverage test for HELOCs and facilitate compliance.

Commenters generally did not object to changing the benchmark for HOEPA's APR coverage test from the yield on Treasury securities to the average prime offer rate.[53] Indeed, several industry commenters specifically supported the change, noting that the average prime offer rate tracks market prices better than the yield on Treasury securities. One such industry commenter noted that, under recent market conditions, the maximum APR for HOEPA coverage for a first-lien, 10-year, fixed-rate mortgage would be higher under the HOEPA Proposal (*i.e.,* 6.5 percentage points over the average prime offer rate) than under existing § 1026.32(a)(1)(i) (*i.e.,* eight percentage points over the yield on comparable Treasuries). Specifically, the commenter stated that, under the HOEPA Proposal, the maximum APR for HOEPA coverage for this transaction would be 10.42 percent, whereas the maximum APR under existing § 1026.32(a)(1)(i) would be 9.70 percent.

Another industry commenter observed that using the average prime offer rate as the benchmark will not be difficult because the average prime offer rate has been used for some time as the benchmark for determining coverage under Regulation Z's higher-priced mortgage loan rules in existing § 1026.35. The commenter, however, suggested that the Bureau work with the FFIEC to ensure that the rate-spread calculator currently employed for purposes of determining higher-priced mortgage loan coverage would be adjusted and usable for purposes of determining HOEPA coverage.

Two commenters urged the Bureau to harmonize the methodologies for calculating the average prime offer rate and the APR for adjustable-rate mortgages under § 1026.32(a)(3). These commenters stated that, for example, if the APR for an adjustable-rate transaction for purposes of determining HOEPA coverage is determined under § 1026.32(a)(3) based on the higher of the initial interest rate or the fully-indexed rate, then the applicable average prime offer rate should be calculated in the same way to ensure that there is a more accurate comparison for purposes of the HOEPA coverage calculation.

Several industry commenters, while not objecting to the use of an average prime offer rate benchmark for HELOCs, urged the Bureau to specify in the final rule (or work to develop) a separate methodology for calculating the average prime offer rate for open-end credit transactions. The commenters stated that it is not sensible to apply the average prime offer rate for closed-end credit transactions to HELOCs, because closed- and open-end mortgage products have different risks, pricing, and loan characteristics. The commenters did not suggest an alternative benchmark or any alternatives for calculating an average prime offer rate for HELOCs. One commenter suggested, however, that if the Bureau adopted ''the most closely comparable closed-end loan'' standard as proposed, then the Bureau should specify how a creditor that originates a HELOC that could be comparable to multiple, different closed-end loans should determine which closed-end loan is the most closely comparable. Finally, one commenter requested guidance concerning the comparable maturity date for an ''evergreen'' HELOC (*i.e.,* a HELOC with no scheduled maturity date) for which the interest rate may be fixed or adjustable.

The Bureau is adopting the change in the APR benchmark from the yield on Treasury securities to the average prime offer rate as set forth in proposed § 1026.32(a)(1)(i). The Bureau is finalizing proposed comments 32(a)(1)(i)–2 and –3 as comments 32(a)(1)(i)–1 and –2, respectively, for organizational purposes.[54] The Bureau makes certain other non-substantive changes to the proposed commentary for purposes of clarification. Specifically, the comments are reorganized, a cross-reference to comment 35(a)(2)–3 is added to comment 32(a)(1)(i)–2,[55] and comment 32(a)(1)(i)–3 is added to cross reference guidance in comment 35(a)(1)–2 on determining the date as of which creditors should compare a transaction's APR to the average prime offer rate. Finally, as discussed further below, additional guidance concerning how a HELOC creditor should determine the most closely comparable closed-end mortgage loan is added to comment 32(a)(1)(i)–2.

In response to commenters' suggestions that the FFIEC rate-spread calculator be adapted for use in determining HOEPA coverage, the Bureau does not anticipate difficulties in using the calculator for this purpose. The calculator exists on the FFIEC Web site primarily for use in determining the ''rate spread'' that must be reported, if any, under HMDA and Regulation C, 12 CFR part 1003. Specifically Regulation C § 1003.4(a)(12) requires HMDA reporters to report the spread between a loan's APR and the applicable average prime offer rate (determined identically to the determination for higher-priced mortgage loans under § 1026.35) if that spread exceeds 1.5 percentage points for a first-lien loan or 3.5 percentage points for a subordinate-lien loan. Those spreads match the spreads that historically have applied for higher-priced mortgage loan coverage

[52] Pursuant to § 1026.40(f)(1), a variable-rate HELOC can vary *only* in accordance with a publicly-available index that is outside of the creditor's control, such as the Wall Street Journal prime rate.

[53] As noted below, however, several industry commenters objected to using the same average prime offer rate for closed- and open-end credit transactions.

[54] In light of the adoption of Alternative 1 rather than Alternative 2, as discussed above, there is no need at present to finalize proposed comment 32(a)(1)(i)–1, which would have provided guidance concerning the transaction coverage rate. Consequently, proposed comments 32(a)(1)(i)–2 and –3 concerning the average prime offer rate are finalized (with the additional clarifying changes noted herein) as comments 32(a)(1)(i)–1 and –2, respectively.

[55] This cross-reference is to a new comment that the Bureau is finalizing in its 2013 Escrows Final Rule. The new comment clarifies that ''average prime offer rate'' as used in § 1026.35 has the same meaning as in Regulation C, 12 CFR part 1003, and it notes that additional guidance concerning the average prime offer rate is located both in the official commentary to Regulation C as well as on the FFIEC's Web site.

determinations under § 1026.35(a)(2), allowing creditors to use the calculator to determine whether a transaction is a higher-priced mortgage loan.[56] Creditors may accomplish this by noting whether the calculator yields a rate spread for reporting under HMDA (which means the transaction is a higher-priced mortgage loan) or ''N/A'' for HMDA reporting purposes (which means the transaction is not a higher-priced mortgage loan). From there, it is a simple step further to note whether any rate spread the calculator yields for HMDA reporting purposes exceeds 6.5 or 8.5 percentage points over the average prime offer rate, as applicable, to know whether the transaction is a high-cost mortgage under § 1026.32(a)(1)(i).

The Bureau acknowledges, as noted by a commenter, that the APR calculation required by § 1026.32(a)(3) for determining HOEPA coverage for a variable-rate transaction generally requires a creditor to use the fully-indexed rate, whereas blended APRs (*i.e.,* APRs that take low introductory rates into consideration) are used to calculate average prime offer rates. The Bureau nevertheless finalizes the rule as proposed. The Bureau believes that APRs (and thus average prime offer rates) calculated pursuant to the blended method are unlikely in most cases to be significantly lower than APRs calculated using the fully-indexed rate.[57] Moreover, the methodology for calculating the average prime offer rate was well-established when Congress passed the Dodd-Frank Act and affirmatively (1) incorporated the average prime offer rate as the benchmark for the APR trigger; and (2) required the use of the fully-indexed rate for determining the APR for variable-rate transactions.

Finally, the Bureau does not at this time adopt a separate methodology for determining the average prime offer rate for HELOCs. Based on available data, the Bureau continues to believe that using the average prime offer rate for the most closely-comparable, closed-end credit transaction is a reasonable benchmark for HOEPA's APR test for HELOCs. The fact that HELOCs are tied to a prime rate which, over a 12-year period, was generally comparable to the average prime offer rate for one-year ARMs informs the Bureau's conclusion. In addition, as discussed above, the average prime offer rate tables are published with a rate-spread calculator that determines the average prime offer rate for the most comparable closed-end credit transaction and automatically compares it to a transaction's APR and lien status to determine the transaction's APR's spread over the applicable average prime offer rate. This calculator can easily be used by creditors originating HELOCs.

Specifically, as described in further detail in comment 32(a)(1)(i)–2, a HELOC creditor should use the published rate-spread calculator to identify the average prime offer rate for the most closely-comparable closed-end credit transaction by inputting the same terms that would be required to determine the most comparable transaction for any closed-end origination. These terms are: (1) Whether the HELOC is fixed- or variable-rate; (2) if the HELOC is fixed-rate, the term to maturity; (3) if the HELOC is variable-rate, the duration of any initial, fixed-rate period; and (4) the date that the interest rate for the transaction is set. Finally, comment 32(a)(1)(i)–2 clarifies that a creditor originating a fixed-rate, evergreen HELOC should enter a term of 30 years.[58] The Bureau believes that 30 years is a reasonable proxy for the term of an evergreen HELOC given that 30 years is the longest term to maturity for conventional mortgage loans.[59]

32(a)(1)(i)(A)

As added by the Dodd-Frank Act, TILA section 103(bb)(1)(A)(i)(I) states that a consumer credit transaction secured by a first mortgage on a consumer's principal dwelling is a high-cost mortgage if the APR at consummation of the transaction will exceed the average prime offer rate for a comparable transaction by more than 6.5 percentage points (or 8.5 percentage points, if the dwelling is personal property and the transaction is for less than $50,000). Thus, under TILA section 103(bb)(1)(A)(i)(I), the APR percentage-point threshold for HOEPA coverage for most first-lien transactions (*i.e.,* all first-lien, real property-secured transactions, as well as first-lien, personal property-secured transactions for $50,000 or more) is 6.5 percentage points over the average prime offer rate.

Proposed § 1026.32(a)(1)(i)(A) (under either proposed Alternative 1 or Alternative 2) would have implemented the statutory 6.5 percentage-point APR threshold by generally mirroring the statutory language but also providing for certain non-substantive changes for clarity, organization, or consistency with existing Regulation Z and the Bureau's other mortgage rulemakings as mandated by the Dodd-Frank Act. For example, proposed § 1026.32(a)(1)(i)(A) would have referred to a ''first-lien transaction'' instead of a ''first mortgage.''

As noted in part IV above, TILA section 103(bb)(2)(A) and (B) provides the Bureau with authority to adjust HOEPA's APR percentage-point thresholds if the Bureau determines that the increase or decrease is consistent with the statutory protections for high-cost mortgages and is warranted by the need for credit. The Bureau did not propose any adjustments to the 6.5 percentage-point APR threshold prescribed by the Dodd-Frank Act for either closed- or open-end transactions. However, the Bureau solicited comment and data on whether any such adjustment would better protect consumers from the risks associated with high-cost mortgages or would be warranted by the need for credit, particularly for HELOCs.

General. Consumer groups generally did not comment on the revised APR percentage-point threshold in proposed § 1026.32(a)(1)(i)(A). One consumer group commenter, however, advocated that the Bureau adopt a threshold of 3.5 percentage points above the average prime offer rate. The commenter noted that, in the current rate environment, most first-lien transactions would not be covered under the revised APR test until their APRs reached approximately 10 percent. This commenter stated that the threshold as proposed would allow unreasonably high rates to be imposed on vulnerable borrowers.

Industry commenters and one State housing finance authority generally expressed concern that the revised APR percentage-point threshold in proposed § 1026.32(a)(1)(i)(A) would inhibit access to credit and suggested various adjustments.[60] For example, several

[56] The higher-priced mortgage loan thresholds in § 1026.35(a)(1) are being revised through a separate rulemaking to incorporate a separate, higher threshold of 2.5 percentage points above the average prime offer rate for first-lien ''jumbo'' transactions pursuant to Dodd-Frank Act section 1471.

[57] Specifically, such a difference would occur only if an introductory rate lasted for an extraordinarily long portion of a transaction's overall term, or if the introductory rate differed very substantially from the fully-indexed rate. *See* comment 17(c)(1)–10.i.

[58] In the case of a variable-rate evergreen HELOC (as for all other closed- and open-end, variable-rate mortgage products) creditors should look to the length of any initial, fixed-rate period.

[59] The published average prime offer rate tables contain average rates for fixed-rate loans with terms of up to 50 years. Historically, however, the average rates for loans with fixed-rate terms of 30 years have been the same as the average rates for loans with fixed-rate terms of longer than 30 years.

[60] Commenters generally did not distinguish between the revised APR percentage-point thresholds for first- and subordinate-lien transactions. For purposes of this section-by-section analysis, however, the two thresholds are discussed separately.

industry commenters urged the Bureau either to increase the threshold or to leave it at its existing (pre-Dodd-Frank Act) level. These commenters generally asserted that the existing threshold has worked well to date, that the Bureau has provided no empirical evidence demonstrating that the threshold needs to be adjusted, and that the enhanced HOEPA protections that the Bureau is finalizing in this rulemaking obviate any need to reduce the threshold. One industry commenter argued that increased coverage under the revised HOEPA coverage tests generally would interfere with the goal of the Bureau's 2012 TILA–RESPA Proposal by eliminating a consumer's ability to shop for and obtain a mortgage near HOEPA's amended thresholds.

The Bureau adopts the 6.5 percentage-point APR threshold for most first-lien transactions in § 1026.32(a)(1)(i)(A) as proposed. The Bureau has authority under TILA section 103(bb)(2)(A) to increase or decrease this APR threshold from the level set forth in the statute to a level between 6 and 10 percentage points above the average prime offer rate. However, prior to making such an adjustment, the Bureau must find that an increase or decrease from the statutory level is consistent with consumer protection and warranted by the need for credit. As noted, both consumer group and industry commenters suggested various adjustments to the threshold or suggested that the existing threshold should not be adjusted in light of protections. None of these commenters, however, provided data or other specific information to indicate how much of an adjustment from the level prescribed by Congress is warranted by a need for access to credit or to protect consumers from abusive lending.

As to the consumer group comment suggesting that the Bureau decrease the APR threshold by several percentage points, the Bureau notes that, under TILA section 103(bb)(2)(B)(i), it does not have authority to reduce the threshold below 6 percentage points above the average prime offer rate. Even for adjustments that would lower the APR threshold within the permitted range (*i.e.,* from the statutory 6.5 percentage points to an adjusted 6 percentage points above the average prime offer rate), the Bureau does not believe that it has sufficient information at this time to justify such a departure based on the need to protect consumers from abusive lending.

As to industry commenters' general argument that the Bureau should maintain the threshold at its existing (pre-Dodd-Frank) level or increase it, the Bureau believes that implementing the APR percentage-point threshold at its statutorily-prescribed level, without any adjustment, is particularly appropriate at this time given the simultaneous change in the benchmark for HOEPA coverage from the yield on Treasury securities to the average prime offer rate. The Bureau believes there are several advantages of using the average prime offer rate rather than the yield on Treasury securities including, as one industry commenter noted, that the average prime offer rate more closely tracks movements in mortgage rates than do yields on Treasury securities.[61] With this change to the benchmark, then, it is not clear that revising the threshold from an eight percentage-point spread to a 6.5 percentage-point spread will result in unwarranted HOEPA coverage. Indeed, as noted in the section-by-section analysis of § 1026.32(a)(1)(i) above, one industry commenter observed that the maximum APR for HOEPA coverage may, depending on market conditions, be higher in certain circumstances under the final rule than under existing § 1026.32(a)(1)(i). Of course, if the Bureau observes an increase in coverage to a degree that interferes with access to credit, the Bureau has authority to increase the threshold as appropriate at that time.

Manufactured housing. Manufactured housing industry commenters in particular raised a number of objections to the APR thresholds.[62] They noted that interest rates for manufactured home loans tend to be higher than for traditional mortgages for a variety of legitimate reasons. For example, the commenters stated that such loans tend to carry more credit risk and have not benefited from secondary market funding to the same degree as site-built housing, thus increasing creditors' cost of funds. According to one commenter, an APR of 14.73 percent therefore is necessary to offer a manufactured home loan on a profitable basis. Industry commenters estimated that, under the HOEPA proposal, between 32 and 48 percent of their recent manufactured home loan originations would have been covered by the APR thresholds if the Bureau adopted the thresholds as proposed. In contrast, these commenters stated that, if the Bureau adopted an APR threshold of 10 percentage points above the average prime offer rate for all home purchase transactions secured in whole or in part by manufactured housing, then only between 12 and 15 percent of manufactured home loans would be covered under the APR test. They also stated that, if the Bureau adopted an APR threshold of 12 percentage points above the average prime offer rate for all manufactured home loans, then only between 2 and 3 percent of manufactured home loans would be covered.

The Bureau acknowledges the concerns raised by manufactured housing industry commenters concerning HOEPA coverage. In the Bureau's view, however, Congress weighed the interests of consumers and creditors concerning the costs and risks associated with manufactured housing loans by specifying a higher APR threshold of 8.5 percentage points above the average prime offer rate for personal property-secured loans with a loan amount of $50,000 or less. (At today's rates, for a 10- or 15-year, fixed-rate loan, the 8.5 percentage-point threshold translates into an APR of approximately 12.5 or 11.25 percent, respectively.) The Bureau thus declines to depart from the APR thresholds prescribed by Congress. The Bureau's analysis was informed by the following considerations.

First, the Bureau understands that manufactured homes may be titled either as personal property (in which case the consumer receives a personal property, or chattel, loan) or as real property (in which case the consumer receives a mortgage). Whether a manufactured home is titled as personal or real property does not perfectly correlate to whether the consumer owns the land on which the home is situated. Indeed, according to 2011 U.S. Census data, even though a majority (77 percent) of new manufactured homes placed during 2011 were titled as personal property, only 26 percent were placed inside manufactured home (*i.e.,* land-lease) communities, with the balance being placed on owned land.[63] Instead, as noted by consumer group commenters, the laws in most States

[61] *See also* the Board's 2008 HOEPA Final Rule, 73 FR 44522, 44534–36 (July 30, 2008) (adopting the average prime offer rate rather than the yield on Treasury securities for the higher-priced mortgage loan coverage test primarily because (1) the spread between Treasuries and mortgage rates can be volatile, even over a relatively short time frame, such that loans with the same risk characteristics but originated at different times may not be treated the same for coverage purposes and (2) matching a mortgage loan to a comparable Treasury security based on the length of the loan's contract maturity creates distortions because few loans reach their full maturity).

[62] Manufactured housing industry commenters also suggested various exemptions for manufactured home loans from HOEPA. Those comments are discussed in detail below in the section-by-section analysis of § 1026.32(a)(2).

[63] *See* Selected Characteristics of New Manufactured Homes Placed by Region, 2011, at *http://www.census.gov/construction/mhs/pdf/char11.pdf.*

provide an option for titling the manufactured home either as personal or real property.

In seeking relief from the APR thresholds, industry commenters noted that the average price of a new manufactured home is approximately $60,600 and that the majority of their originations were secured by homes titled as personal property. The commenters, however, did not specify what portion of their loans would be subject to HOEPA coverage under the 6.5 percentage-point APR threshold, as opposed to the 8.5 percentage-point threshold for smaller-dollar, personal property-secured transactions. Instead, they requested that the Bureau adopt an across-the-board APR threshold of 10 or 12 percentage points above the average prime offer rate for all manufactured housing. (At today's rates, these thresholds translate into APRs of roughly 13 and 15 percent for a 15-year, fixed-rate loan.)

The Bureau understands that, as the commenters described, there tend to be greater costs associated with originating loans secured by manufactured housing, particularly when such loans secured solely by personal property. However, the Bureau does not have authority under HOEPA to increase the APR threshold for first-lien transactions to more than 10 percentage points above the average prime offer rate. Moreover, the higher threshold set forth by Congress for smaller-dollar, personal property loans appears to be consistent with the lower range of estimates of the increased rates that are associated with personal property loans.[64]

For first-lien loans other than those eligible for the higher threshold, the Bureau has been unable to determine from the commenters' estimates what portion of the existing APRs for manufactured home loans is attributable to the factors cited by the commenters, such as credit risk and lack of a robust secondary market.[65]

The Bureau notes that in the current market, 10- or 15-year, fixed-rate manufactured home loans secured by real property (or by personal property where the loan amount is $50,000 or more) would not fall within HOEPA's APR coverage threshold unless they had APRs of greater than approximately 10.5 or 9.25 percent, respectively. The Bureau does not believe that it has sufficient data to determine whether an adjustment to this statutory threshold is needed to compensate for legitimate cost factors, or how large such an adjustment should be.

Moreover, the Bureau is not certain that manufactured home creditors would cease originating loans even if a portion of those loans exceed the high-cost mortgage APR threshold. Some industry commenters argued that they would not originate high-cost mortgages because complying with the restrictions and requirements (particularly the pre-loan counseling requirement) would be cost prohibitive. At the same time, however, industry commenters stated that manufactured home loans typically do not contain the types of loan terms that would be prohibited for high-cost mortgages. In addition, while the pre-loan counseling requirement will entail recordkeeping and data retention costs, the Bureau notes that creditors are not required to cover the cost of counseling.

In sum, prior to adjusting the APR percentage point threshold for all manufactured home loans, the Bureau would need additional information showing why it is cost-prohibitive in today's market for a manufactured home lender to originate a first-lien, real property-secured manufactured home (or a personal property-secured loan for greater than $50,000) with an APR of approximately 10.5 percent or less. For all of these reasons, the final rule adopts § 1026.32(a)(1)(i)(A) as proposed.

32(a)(1)(i)(B)

As added by the Dodd-Frank Act, TILA section 103(bb)(1)(A)(i)(I) provides that, for first-lien transactions on a consumer's principal dwelling where the loan amount is less than $50,000 and is secured by personal property, a transaction is a high-cost mortgage if the APR at consummation will exceed the average prime offer rate for a comparable transaction by more than 8.5 percentage points. As discussed in the section-by-section analysis of § 1026.32(a)(1)(i)(A) above, the APR threshold in TILA section 103(bb)(1)(A)(i)(I) for smaller first-lien loans secured by personal property thus establishes a higher threshold for such loans than the 6.5 percentage-point APR threshold for other first-lien transactions.

Proposed § 1026.32(a)(1)(i)(B) would have implemented the APR threshold for smaller first-lien loans secured by personal property. Proposed § 1026.32(a)(1)(i)(B) generally would have mirrored the statutory language with certain non-substantive changes for clarity, organization, or consistency with existing Regulation Z and the Bureau's other mortgage rulemakings as mandated by the Dodd-Frank Act. For example, proposed § 1026.32(a)(1)(i)(B) would have referred to a ''first-lien transaction'' instead of a ''first mortgage.'' In addition, proposed § 1026.32(a)(1)(i)(B) would have referred to the transaction's ''total loan amount'' rather than its ''total transaction amount.'' Proposed comment 32(a)(1)(i)–4 would have stated that the phrase ''total loan amount'' as used in § 1026.32(a)(1)(i)(B) should be interpreted consistently with the guidance for ''total loan amount'' set forth in proposed § 1026.32(b)(6) and comment 32(b)(6)–1.[66]

The HOEPA proposal noted that first-lien transactions secured by personal property (which may often be manufactured housing loans) may have higher APRs than other first-lien transactions. The Bureau thus specifically solicited comment and data on the higher APR percentage point threshold in proposed § 1026.32(a)(1)(i)(B), including on whether any adjustment either to the percentage point threshold or to the dollar amount cut-off for the threshold (*i.e.,* $50,000) would better protect consumers or is warranted by the need for credit.

The Bureau received several public comments concerning the higher APR percentage-point threshold in proposed § 1026.32(a)(1)(i)(B). Industry commenters generally did not distinguish between the 6.5 and 8.5 percentage-point APR thresholds for first-lien transactions, and those comments are addressed in the section-by-section analysis of § 1026.32(a)(1)(i)(A) above. However, at least one industry commenter requested

[64] *See, e.g.,* Ronald A. Wirtz, *Home, sweet (manufactured?) home, Fedgazette* (July 2005), available at *http://www.minneapolisfed.org/publications_papers/pub_display.cfm?id=1479* (interest rates for chattel loans run 2 to 5 percentage points higher than for real estate loans).

[65] With respect to the lack of a secondary market in particular, this has not always been the case for manufactured home loans. From the late 1980s through the mid-2000s, the manufactured housing industry underwent a boom-and-bust cycle that was a precursor to the larger mortgage market meltdown. Securitization of manufactured home loans increased from $184 million in 1987 to $15 billion in 1999, before declining to virtually zero in 2009. *See* Ann M. Burkhart, *Bringing Manufactured Housing into the Real Estate Financing System,* 37 Pepp. L. Rev. 427, 438–41 (2010). The Bureau understands that the Federal Housing Finance Agency (FHFA) currently is evaluating methods to strengthen the secondary market support for real property-secured manufactured home loans. *See, e.g.,* 75 FR 32099 (June 7, 2010) (FHFA notice of proposed rulemaking to implement section 1129 of the Housing and Economic Recovery Act of 2008 (HERA), which established a duty for Fannie Mae and Freddie Mac to serve three specified underserved markets, including manufactured housing).

[66] Proposed § 1026.32(b)(6) and comment 32(b)(6)–1 are re-numbered as § 1026.32(b)(4) and comment 32(b)(4)–1 in the Bureau's 2013 ATR and HOEPA Final Rules.

that the Bureau adjust the $50,000 cut-off for the 8.5 percentage-point threshold to $125,000.

Consumer groups generally urged the Bureau not to adopt the higher, statutory APR threshold as proposed in § 1026.32(a)(1)(i)(B) unless and until the Bureau finds after further research that the higher threshold is necessary. Several of these commenters argued that the higher threshold is not sensible because it applies to loans that are most likely to be obtained by the most vulnerable and lowest-income consumers. In addition, certain commenters argued that the higher threshold could incentivize manufactured home creditors to steer consumers to title their manufactured homes as personal property in the approximately 42 States that permit a manufactured home owner to title the home as either personal or real property. The commenters stated that steering of this type would be harmful to consumers because loans secured by personal property tend to be more expensive than mortgages secured by real property, and loans secured by personal property also have fewer legal protections than other mortgages.[67] Many of the consumer group commenters argued that, to promote a level playing field for low-income consumers and to prevent steering, all first-lien transactions should have the same APR threshold, irrespective of the amount borrowed and collateral type.

In contrast, one consumer group commenter, while agreeing with concerns about steering, nevertheless believed that the higher APR for smaller-dollar-amount, personal property-secured loans was warranted given market conditions and creditors' cost of funds. This commenter opposed any increase in the higher APR threshold beyond what is provided in the statute. This commenter based its recommendation on anecdotal evidence obtained by consulting with a sample of single-family manufactured home loan originators,[68] all of whom opposed raising the APR threshold higher than 8.5 percentage points above the average prime offer rate.

As provided by TILA section 103(bb)(1)(i)(A)(I), the final rule adopts in § 1026.32(a)(1)(i)(B) the higher APR threshold of 8.5 percentage points over the average prime offer rate for first-lien loans secured by personal property and with a loan amount of less than $50,000. The Bureau understands that this separate threshold was designed to reflect costs associated with smaller-dollar, personal property loans.

The Bureau shares commenters' concerns that a higher percentage-point threshold for personal property-secured loans could, if set too high, exacerbate incentives for creditors to steer consumers into titling their homes as personal property. The Bureau understands that such steering can and does currently occur in the market. Indeed, the National Conference of Commissioners on Uniform State Laws approved in July 2012 a Uniform Manufactured Housing Act that would simplify and streamline State laws to convert manufactured homes titled as personal property to real property and would prohibit manufactured home sellers from steering consumers to chattel loans rather than mortgages.[69] As noted, personal property-secured loans tend to offer consumers fewer legal protections, so a rule that permits HOEPA coverage to turn on how the loan is titled, and that therefore potentially incentivizes steering to personal property-secured loans, could be disadvantageous to some consumers. However, because personal property-secured loans generally have had costs roughly 2 to 5 percent higher than mortgages (as noted in the section-by-section analysis of § 1026.32(a)(1)(i)(A) above) the Bureau does not believe that implementing the 2 percentage-point higher threshold for such loans will exacerbate any steering that may already be occurring in the market. On balance, then, the Bureau believes that it is appropriate to effectuate the higher APR threshold for smaller-dollar, personal-property secured loans in light of the higher costs occurring in the market for such loans. In light of the fact that Congress set forth a clear line for this threshold, and in the absence of specific evidence demonstrating another line that would better protect consumers while maintaining access to credit, the Bureau declines to adjust the statutory threshold.

The Bureau adopts proposed comment 32(a)(1)(i)–4 explaining how to determine the ''loan amount'' for purposes of the $50,000 cut-off, but re-numbers it as comment 32(a)(1)(i)(B)–1 for organizational purposes. In the final rule, the Bureau also clarifies that the $50,000 refers to the face amount of the note, rather than (as proposed) the ''total loan amount.'' The ''total loan amount'' is a defined term used in connection with calculating whether a transaction meets the percentage point thresholds in the points and fees coverage test. As discussed in the section-by-section analysis of § 1026.32(a)(1)(ii) below, the points and fees coverage test adopts the face of amount of the note as the relevant metric for determining whether a loan is above or below the $20,000 cut-off between the 5 percent and 8 percent points and fees tests. The face amount of the note is adopted in that context for consistency with the approach adopted in the points and fees provisions of the 2013 ATR Final Rule. The Bureau believes that a consistent approach to determining whether a transaction is above or below a particular dollar-value threshold will facilitate compliance with Regulation Z. Thus, upon further consideration, the Bureau specifies in the 2013 HOEPA Final Rule that the face amount of the note also is the appropriate amount for a creditor to reference in determining whether to apply the 6.5 or 8.5 APR percentage-point threshold for HOEPA coverage.

32(a)(1)(i)(C)

TILA section 103(bb)(1)(A)(i)(II) provides that a consumer credit transaction secured by a subordinate or junior mortgage on the consumer's principal dwelling is a high-cost mortgage if the APR at consummation of the transaction will exceed the average prime offer rate for a comparable transaction by more than 8.5 percentage points. Proposed § 1026.32(a)(1)(i)(C) would have implemented the revised APR percentage point threshold for subordinate-lien transactions with one minor terminology change (referencing a ''subordinate-lien transaction'' rather than a ''subordinate or junior

[67] For example, State laws governing foreclosure procedures typically provide fewer protections to homes titled as personal property than to homes titled as real property, and RESPA only partially applies to personal property-secured loans.

[68] The commenter did not state how many entities it sampled in its survey. Based on information that the commenter provided, respondents included a nonprofit lender in rural Montana, a nonprofit affordable housing developer in upstate New York, a Community Development Financial Institution in New Hampshire, and a credit union that makes manufactured home loans.

[69] *See* National Conference of Commissioners on Uniform State Laws, *Uniform Manufactured Housing Act* (July 2012), at *http://uniformlaws.org/Act.aspx?title=Manufactured Housing Act.* As noted in a comment to the uniform law, whether a manufactured home is titled as real or personal property ''can affect the buyer's financing and legal rights in the home, such as homestead protection and marital property rights, and taxation of the home. * * * Under the current system of manufactured home financing, sellers, including retailers, have incentives to steer buyers to chattel loans, rather than to mortgage loans. However, when a mortgage loan is available, it often is the better option for the buyer. Though the closing costs for a mortgage loan can be higher than for a chattel loan, the lower interest rate and longer term for a mortgage loan translate to substantially lower monthly payments. Financing with a mortgage loan also provides the owner of a manufactured home with the same legal protections as the owner of a site-built home. Therefore, subsection (b) prohibits seller steering.''

mortgage'') for consistency with Regulation Z.

Industry and consumer group commenters generally made the same comments concerning proposed § 1026.32(a)(1)(i)(C) that they did for § 1026.32(a)(1)(i)(A). That is, industry commenters generally expressed concern about the revised APR percentage-point threshold, argued that the existing (pre-Dodd-Frank Act) threshold is sufficient for consumer protection, and stated that revising the threshold would result in unwarranted coverage of loans as high-cost mortgages. Consumer group commenters generally suggested that the Bureau lower the proposed APR percentage-point threshold. One consumer group commenter, for example, advocated that the Bureau adopt an APR threshold of 5.5 percentage points above the average prime offer rate for subordinate-lien transactions.

The commenters did not provide firm data or other specific information to indicate what adjustment from the level prescribed by Congress is warranted by a need for access to credit or to protect consumers from abusive lending. The final rule therefore adopts § 1026.32(a)(1)(i)(C) as proposed, for all of the reasons articulated in the section-by-section analysis of § 1026.32(a)(1)(i)(A) above. With respect to the comment suggesting that the Bureau lower the APR percentage point threshold to 5.5 percentage points above the average prime offer rate, the Bureau notes that, even if it possessed data to warrant such a reduction (and it does not), the Bureau does not have authority under TILA section 103(bb)(2)(B)(ii) to reduce the APR percentage-point threshold for subordinate-lien transactions to less than eight percentage points above the average prime offer rate.

32(a)(1)(ii)

Numerical Coverage Thresholds for Points and Fees

Prior to the Dodd-Frank Act, TILA section 103(aa)(1)(B) provided that a mortgage is subject to the restrictions and requirements of HOEPA if the total points and fees payable by the consumer at or before loan closing exceed the greater of 8 percent of the total loan amount or $400. Prior to the designated transfer date under the Dodd-Frank Act, the Board adjusted the $400 figure annually for inflation, in accordance with TILA section 103(aa)(3). For 2013, the Bureau adjusted the figure to $625 from $611, where it had been set for 2012.[70]

Section 1431(a) of the Dodd-Frank Act amended HOEPA's points and fees coverage test to provide in TILA section 103(bb)(1)(A)(ii) that a mortgage is a high-cost mortgage if the total points and fees payable in connection with the transaction exceed either 5 percent or 8 percent of the total transaction amount, depending on the size of the transaction.[71] Specifically, under TILA section 103(bb)(1)(A)(ii)(I), a transaction for $20,000 or more is a high-cost mortgage if the total points and fees payable in connection with the transaction exceed 5 percent of the total transaction amount. Under TILA section 103(bb)(1)(A)(ii)(II), a transaction for less than $20,000 is a high-cost mortgage if the total points and fees payable in connection with the transaction exceed the lesser of 8 percent of the total transaction amount or $1,000, or such other dollar amount as the Bureau shall prescribe by regulation. The Bureau proposed to implement the Dodd-Frank Act's amendments to TILA's points and fees coverage test for high-cost mortgages in proposed § 1026.32(a)(1)(ii)(A) and (B).

As in the case of the APR coverage test, consumer group commenters urged the Bureau to apply the same points and fees threshold of 5 percent to all transactions, irrespective of the loan amount. These commenters argued that the higher, 8 percent points and fees threshold for smaller transactions (*i.e.,* loans of less than $20,000) set forth in the statute disadvantages lower-income and more vulnerable consumers.

The Bureau received a number of comments from industry expressing concern that the points and fees thresholds prescribed by the Dodd-Frank Act, like the amended APR thresholds, would restrict access to credit. Some industry commenters expressed particular concern about smaller transactions, including loans originated by Housing Finance Agencies and under the USDA Rural Housing Program. One such commenter argued that the 5 percent points and fees threshold would be most problematic for loan amounts below approximately $60,000 and stated that the threshold would drive creditors to impose strict minimum loan amounts on their mortgage originations. Industry commenters generally acknowledged a good deal of uncertainty in estimating the potential impact of the revised points and fees thresholds given that the Bureau had not yet finalized the Dodd-Frank Act's amendments to the definition of points and fees. (As discussed in the section-by-section analysis of § 1026.32(b)(1) and (2) below, the Dodd-Frank Act amended the definition of points and fees to remove certain items that previously would have been counted (*e.g.,* certain mortgage insurance premiums and bona fide discount points) and to add other items (*e.g.,* the maximum prepayment penalties that may be charged). Industry commenters nevertheless suggested that the Bureau exercise its authority to leave the points and fees thresholds at their existing (*i.e.,* pre-Dodd-Frank Act) levels.[72]

As in the case of the APR coverage test, manufactured housing industry commenters expressed concern about HOEPA coverage of manufactured home loans under the points and fees coverage test. These commenters estimated that anywhere from 24 to 51 percent of their manufactured home originations during 2010 and 2011 would have been covered under the proposal's points and fees threshold. (Commenters did not specify what percentage of their loans would have been subject to the 5 percent or 8 percent thresholds.) Commenters explained that manufactured home loans, particularly those secured by personal property, tend to be for smaller amounts than real property-secured loans. However, according to these commenters, the cost of originating and servicing a loan of $200,000 and a loan of $20,000 is essentially the same in terms of absolute dollars. They asserted that because the cost of origination as a percentage of loan size thus is significantly higher for smaller loans, transactions with small loan amounts should not be treated the same for purposes of the points and fees test. Commenters suggested that adjusting the points and fees threshold for purchase-money mortgages secured in whole or in part by manufactured housing would ensure consumer protection while maximizing credit availability. For example, one commenter estimated that, if the Bureau applied a points and fees test of the

[70] *See* 77 FR 69738 (Nov. 6, 2012) (adding comment 32(a)(1)(ii)–2.xviii).

[71] TILA section 103(bb)(1)(A)(ii) also excludes from points and fees bona fide third-party charges not retained by the mortgage originator, the creditor, or an affiliate of either. This exclusion is implemented in § 1026.32(b)(1)(D) (closed-end credit transactions) and (b)(2)(D) (open-end credit plans).

[72] Industry and consumer groups also commented on the Bureau's proposed implementation of the statutory change from requiring the inclusion in points and fees of items payable by the consumer ''at or before closing'' to items ''payable in connection with the transaction.'' The Bureau addresses those comments in the section-by-section analysis of § 1026.32(b)(1) below.

greater of (1) 5 percent of the total loan amount or $3,000, or (2) 5 percent of the total loan amount or $5,000, to all purchase-money mortgages secured in whole or in part by manufactured housing, then 41 percent or 22 percent of all manufactured housing loans, respectively, would be covered under the points and fees test.

The Bureau finalizes the adjusted points and fees thresholds in § 1026.32(a)(1)(ii)(A) and (B) as proposed. The Bureau recognizes that points and fees comprise, in part, a means of recovering costs that may constitute a larger percentage of the loan amount for smaller loans. However, as is the case of the APR coverage test, Congress already adjusted the points and fees test to account for this fact by setting the threshold for loans of less than $20,000 higher than the threshold for all other loans. The Bureau would need to exercise its exception authority under TILA section 105(a) to adjust the thresholds beyond what Congress provided and, in turn, would need data or specific information showing that a departure from the levels set by Congress is warranted. Commenters presented some information indicating that, in a significant percentage of smaller transactions made by some lenders, points and fees currently are charged that exceed the threshold established by Congress. However, neither this information nor any other data available to the Bureau establishes that application of the statutory threshold will cause these lenders to cease making these loans. Moreover, commenters did not provide, and the Bureau is not otherwise aware of data or other information that would support, specific numeric thresholds different than those provided by Congress. The Bureau understands commenters' concerns that, if lenders choose to impose strict lending limits, that could have fair lending implications, because low- to moderate-income families and minorities could be more likely to suffer disproportionately. On the other hand, the Bureau is mindful of concerns raised by consumer groups that these are the very populations that need extra protections that are afforded by laws such as HOEPA. The Bureau believes that the points and fees coverage test is important in ensuring that loans with high upfront costs are subject to such special protections, and in the Bureau's view, the commenters did not present a persuasive case that implementing the statutory thresholds would adversely affect credit availability. In addition, as discussed in the section-by-section analysis of § 1026.32(b)(1) and (2) below, the Bureau notes that it is adopting several limitations and clarifications to the definition of points and fees in response to industry commenters' concerns (*e.g.,* by specifying that only such fees that are known at or before consummation must be included in the calculation). The Bureau believes that those clarifications and limitations will address some of industry's concerns regarding unwarranted coverage through points and fees.

The Bureau similarly is not persuaded that a different, higher points and fees threshold should apply to manufactured home loans. As noted, manufactured housing industry commenters suggested that the Bureau implement a points and fees threshold for all loans secured in whole or in part by manufactured housing (*i.e.,* for any real- or personal property-secured transaction) of (at least) the greater of 5 percent of the total loan amount or $3,000. Under this suggested approach, all loans secured by manufactured housing with loan amounts less than $60,000 could charge points and fees of $3,000 without triggering HOEPA coverage. The Bureau notes that the $3,000 amount becomes an increasingly large percent of the loan amount as the loan size decreases. Thus, for the smallest loans (*i.e.,* those that would be expected, for example, to be made to the most vulnerable consumers purchasing used manufactured homes on land that they do not own) the suggested points and fees could reach up to 60 percent of the loan amount.[73] Manufactured housing industry commenters argued, as did other industry commenters, that points and fees naturally comprise a larger percent of the loan amount as loan amounts decrease in size. However, they did not provide specific evidence indicating that smaller manufactured home loans (let alone all manufactured home loans) have characteristics that merit a different points and fees threshold than other, smaller transactions. In short, in light of the fact that Congress articulated a specific points and fees threshold for smaller transactions, and in the absence of specific evidence indicating a more appropriate threshold, the Bureau adopts in the final rule the points and fees thresholds as set forth in the statute.

Determining the $20,000 Amount; Adjustment for Inflation

As noted, a 5 percent points and fees coverage test applies to transactions of $20,000 or more, and an 8 percent test applies to transactions of less than $20,000. The Bureau's 2012 HOEPA Proposal did not propose a specific methodology for determining whether a transaction was above or below the $20,000 amount. As noted in the section-by-section analysis of § 1026.32(a)(1)(i)(B) above, in the 2013 ATR Final Rule, the Bureau is providing that a creditor must determine which points and fees tier applies to a transaction for purposes of the qualified mortgage points and fees test by using the face amount of the note (*i.e.,* the ''loan amount'' as defined in § 1026.43(b)(5)). *See* the section-by-section analysis of § 1026.43(e)(3)(i) in the 2013 ATR Final Rule. For consistency with the approach being adopted in the 2013 ATR Final and to ease compliance, the Bureau is adopting the same approach for determining whether a transaction is above or below the $20,000 amount for the HOEPA points and fees coverage test. The Bureau adopts this clarification in new comment 32(a)(1)(ii)–3.[74]

The Bureau also clarifies in § 1026.32(a)(1)(ii) and new comment 32(a)(1)(ii)–3 that the $20,000 amount in § 1026.32(a)(1)(ii)(A) and (B) will be adjusted annually for inflation on January 1 by the annual percentage change in the CPI that was in effect on the preceding June 1. To make this adjustment, the Bureau invokes its authority under TILA section 105(a), which grants the Bureau authority to exempt all or any class of transactions where necessary or proper to effectuate the purposes of TILA, to prevent evasion, or to facilitate compliance. The Bureau believes adjusting the $20,000 amount for inflation is necessary and proper to effectuate the purposes of, and to facilitate compliance with, TILA. The Bureau believes that failing to adjust the $20,000 amount would hinder access to credit without meaningfully enhancing consumer protection by failing to account for the effects of inflation. As noted above, the Bureau received a

[73] For example, the Bureau understands that lenders may set minimum loan amounts of $5,000. Points and fees of $3,000 on a $5,000 loan equal 60 percent of the loan amount. One industry commenter, citing the American Housing Survey (AHS) noted that the median purchase price of a manufactured home (including new and existing home sales) is $27,000. Points and fees of $3,000 on a $27,000 loan equal 11 percent of the loan amount.

[74] Comment 32(a)(1)(ii)–3 explains that creditors must apply the allowable points and fees percentage to the ''total loan amount'' as defined in § 1026.32(b)(4), which may be different than the face amount of the note. This approach also is consistent with the approach adopted for the points and fees test for qualified mortgages. *See* § 1026.43(e)(3)(i) and comment 43(e)(3)(i)–2, as adopted in the 2013 ATR Final Rule.

significant number of comments expressing concern about the points and fees coverage test for smaller transactions. The Bureau believes that adopting this final rule without providing for the $20,000 to be adjusted for inflation would, over time, discourage some creditors from making smaller loans, to the detriment of consumers, without providing any meaningful corresponding consumer protection benefit. Accordingly, the Bureau believes that providing for the adjustment of the $20,000 amount will strengthen competition among financial institutions and promote economic stabilization.[75]

Total Transaction Amount

TILA section 103(bb)(1)(A)(ii) provides that a mortgage is a high-cost mortgage if its total points and fees exceed (depending on transaction size) either 5 percent or 8 percent of the ''total transaction amount,'' rather than the ''total loan amount.'' The Dodd-Frank Act did not define the term ''total transaction amount.'' However, the Bureau noted in its proposal that it believed the phrase reflected the fact that HOEPA, as amended, applies to both closed- and open-end credit transactions secured by a consumer's principal dwelling.[76] Notwithstanding the statutory change, for consistency with existing Regulation Z terminology, proposed § 1026.32(a)(1)(ii) would have provided that a high-cost mortgage is one for which the total points and fees exceed a certain percentage of the ''total loan amount.'' The Bureau received no comments concerning its adoption of the phrase ''total loan amount'' rather than ''total transaction amount,'' as set forth in the statute and thus adopts the language as proposed. *See* the section-by-section analysis of § 1026.32(b)(4) below for a discussion of the definition of ''total loan amount.''

Annual Adjustment of $1,000 Amount

As amended by the Dodd-Frank Act, HOEPA's points and fees coverage test appears in TILA section 103(bb)(1)(A)(ii)(I) and (II). Prior to being renumbered by Dodd-Frank, this test appeared in TILA section 103(aa)(1)(B)(i) and (ii). The Dodd-Frank Act did not amend TILA section 103(bb)(3), which requires the points and fees dollar figure to be adjusted annually for inflation, to reflect this new numbering. Instead, TILA section 103(bb)(3) continues to cross-reference TILA section 103(bb)(1)(B)(ii), which now sets forth the methodology for determining the APR for HOEPA coverage in transactions with rates that vary according to an index. To give meaning to the statute as amended, the 2012 HOEPA Proposal interpreted the authority provided to it in TILA section 103(bb)(3) as authority to continue to adjust annually for inflation the dollar figure prescribed in TILA section 103(bb)(1)(A)(ii)(II), as has been done prior to the Dodd-Frank Act.

The Bureau proposed to re-number existing comment 32(a)(1)(ii)–2 concerning the annual adjustment of the points and fees dollar figure as comment 32(a)(1)(ii)–1 for organizational purposes, as well as to revise it in several respects to reflect proposed revisions to § 1026.32(a)(1)(ii). First, proposed comment 32(a)(1)(ii)–1 would have replaced references to the pre-Dodd-Frank Act statutory figure of $400 with references to the new statutory figure of $1,000. In addition, consistent with the Dodd-Frank Act's transfer of rulemaking authority for HOEPA from the Board to the Bureau, proposed comment 32(a)(1)(ii)–1 would have stated that the Bureau will publish and incorporate into commentary the required annual adjustments to the $1,000 figure after the June Consumer Price Index figures become available each year.

Finally, the proposal would have retained in proposed comment 32(a)(1)(ii)–2 the paragraphs in existing comment 32(a)(1)(ii)–2 enumerating the $400 figure as adjusted for inflation from 1996 through 2012. The proposal noted that it would be useful to retain the list of historical adjustments to the $400 figure for reference, notwithstanding that TILA section 103(bb)(1)(A)(ii)(II) increases the dollar figure from $400 to $1,000.

The Bureau received no comments on proposed comments 32(a)(1)(ii)–1 and –2. The Bureau adopts the comments as proposed.

32(a)(1)(iii)

Prior to the Dodd-Frank Act, a mortgage was classified as a high cost mortgage if either its APR or its total points and fees exceeded certain statutorily prescribed thresholds. Section 1431(a) of the Dodd-Frank Act amended TILA to add new section 103(bb)(1)(A)(iii), which provides that a transaction is also a high-cost mortgage if the credit transaction documents permit the creditor to charge or collect prepayment fees or penalties more than 36 months after the transaction closing or if such fees or penalties exceed, in the aggregate, more than two percent of the amount prepaid.

Proposed § 1026.32(a)(1)(iii) would have implemented TILA section 103(bb)(1)(A)(iii) with several minor clarifications. First, proposed § 1026.32(a)(1)(iii) would have replaced the statutory reference to prepayment penalties permitted by the ''credit transaction documents'' with a reference to such penalties permitted by the ''terms of the loan contract or open-end credit agreement.'' This phrasing was proposed to reflect the application of § 1026.32(a)(1)(iii) to both closed- and open-end transactions, and for consistency with Regulation Z. Proposed § 1026.32(a)(1)(iii) also would have cross-referenced the definition of prepayment penalty in proposed § 1026.32(b)(8).[77] Finally, proposed § 1026.32(a)(1)(iii) would have clarified that the creditor must include any prepayment penalty that is permitted to be charged more than 36 months ''after consummation or account opening,'' rather than after ''transaction closing.'' The Bureau proposed to use these terms for closed- and open-end transactions, respectively, for consistency with Regulation Z.

Proposed comment 32(a)(1)(iii)–1 would have explained how the coverage tests for high-cost mortgages in § 1026.32(a)(1)(i) through (iii) interact with the ban on prepayment penalties for high-cost mortgages in amended TILA section 129(c), which the HOEPA proposal would have implemented in § 1026.32(d)(6). Specifically, proposed comment 32(a)(1)(iii)–1 would have explained that § 1026.32 implicates prepayment penalties in two main ways. If a transaction is a high-cost mortgage by operation of *any* of the coverage tests in proposed § 1026.32(a)(1) (*i.e.,* the APR, points and fees, or prepayment penalty tests), then the transaction must not include a prepayment penalty. Furthermore, under the prepayment penalty coverage test in § 1026.32(a)(1)(iii), a transaction is a high-cost mortgage if, under the terms of the loan contract or credit agreement, a creditor can charge either (1) a prepayment penalty more than 36 months after consummation or account opening, or (2) total prepayment

[75] The Bureau also notes that adjusting the $20,000 amount for inflation is consistent with the approach adopted for the points and fees test for qualified mortgages in the Bureau's 2013 ATR Final Rule. The Bureau believes that adopting a uniform approach in both the high-cost and qualified mortgage contexts will facilitate compliance with TILA. *See* § 1026.43(e)(3)(i) and (ii), as adopted in the 2013 ATR Final Rule.

[76] In this regard, the Bureau noted that section 1412 of the Dodd-Frank Act retained the phrase ''total loan amount'' for purposes of determining whether a closed-end credit transaction complied with the points and fees restrictions applicable to qualified mortgages. *See* TILA section 129C(b)(2)(A)(vii).

[77] The Bureau is finalizing proposed § 1026.32(b)(8) as § 1026.32(b)(6).

penalties that exceed two percent of any amount prepaid. Taken together, § 1026.32(a)(1)(iii) and § 1026.32(d)(6) effectively establish a maximum period during which a prepayment penalty may be imposed, and a maximum prepayment penalty amount that may be imposed, on a transaction secured by a consumer's principal dwelling, other than a mortgage that is exempt from high-cost mortgage coverage under § 1026.32(a)(2).

Proposed comment 32(a)(1)(iii)–1 also cross-referenced proposed § 226.43(g) in the Board's 2011 ATR Proposal. Under that proposal, § 226.43(g) would have implemented new TILA section 129C(c) by (1) prohibiting prepayment penalties altogether for most closed-end credit transactions unless the transaction is a fixed-rate, qualified mortgage with an APR that meets certain statutorily-prescribed thresholds; and (2) restricting prepayment penalties even for such qualified mortgages to three percent, two percent and one percent of the amount prepaid during the first, second, and third years following consummation, respectively.[78]

The Bureau's HOEPA proposal noted that the cumulative effect of the Dodd-Frank Act's amendments to TILA concerning prepayment penalties for closed-end transactions would be to limit the amount of prepayment penalties that may be charged in connection with most such transactions to amounts that would not meet the high-cost mortgage prepayment penalty coverage test. Specifically, the Dodd-Frank Act not only limited the amount of prepayment penalties as just described, but it also provided that prepayment penalties must be included in the points and fees calculations for high-cost mortgages and qualified mortgages. *See* TILA sections 103(bb)(4) and 129C(b)(2)(C).[79]

Proposed comment 32(a)(1)(iii)–2 would have provided guidance concerning the calculation of prepayment penalties for HELOCs for purposes of proposed § 1026.32(b)(1)(iii). Proposed comment 32(a)(1)(iii)–2 provided that, if the terms of a HELOC agreement allow for a prepayment penalty that exceeds two percent of the initial credit limit for the plan, the agreement would be deemed to permit a creditor to charge a prepayment penalty that exceeds two percent of the ''amount prepaid'' within the meaning of proposed § 1026.32(a)(1)(iii). Proposed comment 32(a)(1)(iii)–2 provided three examples to illustrate the rule.

The Bureau received comments addressing various aspects of proposed § 1026.32(a)(1)(iii) and comments 32(a)(1)(iii)–1 and –2. A few industry commenters either stated that the 36-month prepayment penalty restriction seemed reasonable or stated that the prepayment penalty test would not have a significant impact. Several other industry commenters, however, either objected entirely to the addition of a prepayment penalty coverage test for high-cost mortgages as unnecessary or stated that the Bureau should narrow the scope of the test. Two industry commenters expressed concern that including waived closing costs as prepayment penalties (*see* the section-by-section analysis of § 1026.32(b)(6) below) would significantly increase the likelihood that many smaller transactions would become high-cost mortgages under the two percent prepayment penalty test. The commenters noted that such loans tend to serve low-income consumers and have costs that are waived at closing on the condition that the consumer does not prepay. The commenters thus suggested that the Bureau establish a different prepayment penalty test for smaller transactions. Finally, one commenter suggested that the Bureau specify that the prepayment penalty coverage test, like the APR and points and fees tests, is based on information known as of consummation or account opening.[80]

The Bureau is adopting § 1026.32(a)(1)(iii) and its commentary substantially as proposed, with minor adjustments to reflect both the high-cost mortgage coverage exemptions in § 1026.32(a)(2) and certain other re-numbering in the final rule. Notwithstanding that a small number of commenters expressed general dissatisfaction with the addition of a prepayment penalty coverage test for high-cost mortgages, particularly for smaller-dollar-amount transactions, the Bureau declines to depart from the statutory requirement to add the test. These commenters did not provide data to support the need either for a wholesale departure from the statute or, in the case of smaller loans, to warrant the increased regulatory complexity that would come with adding a separate prepayment penalty test for such transactions. Furthermore, the Bureau notes that, even if it were to adopt a narrower prepayment penalty test for HOEPA coverage, prepayment penalties still would be restricted by the bans and limitations that the Bureau is adopting for most closed-end transactions in its 2013 ATR Final Rule.

As to the suggestion that the prepayment penalty test be based on information known as of consummation or account opening, the Bureau acknowledges that a creditor may not be able to determine whether a flat-rate prepayment penalty would exceed two percent of an ''amount prepaid,'' when the ''amount prepaid'' will not be known until the prepayment is made. However, the Bureau notes that, for a transaction with a prepayment penalty, creditors can ensure that they do not exceed the prepayment penalty coverage test by providing that any prepayment penalty (including any flat penalty) will not exceed 2 percent of the prepaid amount.

Although the Bureau adopts the prepayment penalty coverage test in § 1026.32(a)(1)(iii) substantially as proposed, the Bureau adopts in § 1026.32(b)(6) a narrower definition of prepayment penalty. The final definition addresses comments concerning the inclusion of conditionally waived closing costs in prepayment penalties, particularly for smaller loans. The definition provides that certain conditionally-waived, bona fide third-party closing costs are not prepayment penalties. This approach ensures that bona fide third-party charges that would not be counted in points and fees if they were charged to the consumer upfront (*see, e.g.,* the section-by-section analysis of § 1026.32(b)(1)(i)(D)) also will not be counted in points and fees if they are waived on the condition that the consumer does not prepay the loan in full or terminate a HELOC during the first 36 months following consummation or account opening. This approach also should reduce the charges that count toward the high-cost mortgage prepayment penalty coverage test and at least partially address commenters' concerns regarding unwarranted coverage of smaller loans. *See also* the section-by-section analysis of § 1026.32(b)(6) below.

32(a)(2)

Exemptions

As noted in the section-by-section analysis of § 1026.32(a)(1) above, the Dodd-Frank Act expanded HOEPA coverage by providing in TILA section

[78] *See* 76 FR 27390, 27472–78 (May 11, 2011). These provisions are being finalized in the Bureau's 2013 ATR Final Rule.

[79] *See* the section-by-section analysis of § 1026.32(b)(1) and (2) below.

[80] In addition to receiving comments concerning the prepayment penalty coverage test, the Bureau received various comments concerning its proposed definition of prepayment penalties for closed- and open-end transactions. Those comments are discussed in the section-by-section analysis of § 1026.32(b)(6)(i) and (ii) below.

103(bb)(1) that the term ''high-cost mortgage'' means any consumer credit transaction that is secured by the consumer's principal dwelling, other than a reverse mortgage transaction, if any of the prescribed high-cost mortgage thresholds are met. The proposal would have implemented TILA's amended definition of ''high-cost mortgage'' by removing the pre-Dodd-Frank Act statutory exemptions for residential mortgage transactions (*i.e.,* purchase-money mortgage loans) and HELOCs, while retaining the exemption of reverse mortgage transactions.[81]

Consumer advocate commenters generally supported the expansion of HOEPA to cover the new loan types. Industry commenters, on the other hand, expressed concern about the expansion of HOEPA and the resulting decrease in access to credit that they argued would follow.[82] Numerous industry commenters thus requested that the Bureau use its authority under TILA to exempt one or more categories of transactions from high-cost mortgage coverage. These comments are addressed in turn below.

General

Several commenters requested an exemption for HELOCs. They argued that exempting HELOCs would not interfere with the purpose of the high-cost mortgage protections and that, particularly in light of current market conditions, the Bureau should use its authority to expand, rather than to constrain, credit availability. The commenters stated that they might stop offering HELOCs if too many are covered by the high-cost mortgage coverage tests. A small number of other industry commenters requested exemptions for purchase-money mortgage loans, loans held in portfolio, and loans originated by smaller lenders or small credit unions.

The Bureau generally declines at this time to depart from Congress's clear intent to expand HOEPA to apply to most closed- and open-end credit transactions secured by a consumer's principal dwelling. In most cases, commenters expressed general concerns about the potential impact on access to credit of extending HOEPA to cover purchase-money mortgages and HELOCs. A number of commenters focused particularly on the potential impact on rural or underserved borrowers. However, they did not provide data to support any particular coverage exclusions. The Bureau notes that in order to make adjustments to HOEPA coverage, it must find that an adjustment is necessary and proper to effectuate the purposes of TILA, to prevent circumvention or evasion thereof, or to facilitate compliance therewith. Without firm data or other specific information to support commenters' claims regarding the effect of HOEPA expansion on access to credit, the Bureau does not believe that departures from TILA's coverage provisions are warranted. The Bureau recognizes, however, that the expansion of HOEPA to cover purchase-money mortgage loans raises unique concerns for certain categories of transactions (*e.g.,* construction loans) and addresses those unique transactions through the narrower coverage exemptions discussed below. In addition, the Bureau believes that certain, specific concerns regarding expanded high-cost mortgage coverage (*e.g.,* preserving access to balloon payment loans in rural or underserved areas) may be addressed through more targeted measures on a provision-by-provision basis. Those measures are discussed below in the section-by-section analysis of §§ 1026.32 and 1026.34.

Manufactured Housing and Personal Property-Secured Transactions

Prior to the Dodd-Frank Act, TILA excluded purchase-money mortgages from HOEPA coverage. The exclusion of purchase-money mortgages meant that specific types of lending were all but excluded from HOEPA coverage as a practical matter, if not by name. For example, refinancings of manufactured home loans and loans secured by other types of personal property (*e.g.,* houseboats or recreational vehicles) historically were subject to HOEPA, but such loans are relatively rare. By amending TILA to remove the exclusion of purchase-money mortgages from HOEPA, the Dodd-Frank Act also removed the effective exclusion of manufactured home and personal property-secured loans from HOEPA. As discussed in the section-by-section analysis of § 1026.32(a)(1)(i)(A) and (B) above, Congress understood that expanding HOEPA to cover purchase-money transactions implicated such loans, because it created a specific APR coverage threshold for personal property-secured first-liens with a transaction amount of $50,000 or less.

The HOEPA proposal did not propose specific relief from HOEPA coverage for manufactured home or personal property-secured loans beyond proposing to implement the separate, higher APR threshold set forth in the statute. As already discussed in the section-by-section analysis of § 1026.32(a)(1)(i)(B) and (ii) above, the Bureau received public comments from both industry and consumer groups urging the Bureau to adjust the high-cost mortgage coverage tests as applied to manufactured housing. Numerous participants in the manufactured housing industry also requested that the Bureau exempt manufactured home loans from HOEPA coverage altogether. A few industry commenters similarly recommended that the Bureau exempt loans secured by personal property, such as houseboats and recreational vehicles, from HOEPA coverage.

Manufactured housing. Industry commenters expressed serious concerns about the impact that the HOEPA proposal might have on the manufactured housing industry and on lower-income and rural consumers who rely on the manufactured home for affordable housing. Both industry and consumer group commenters noted that manufactured home loans primarily serve low- and moderate-income consumers in rural areas where access to other housing options and credit may be limited. Specifically, the Manufactured Housing Institute (MHI) estimated in its comment letter that there are approximately 9 million American families living in manufactured homes, that the average sales price of a new manufactured home is approximately $60,600, and that 60 percent of manufactured homes are located in rural areas. Moreover, according to 2011 census data as reported by MHI, in 2011 manufactured homes accounted for 46 percent of all new homes sold under $150,000, and 72 percent of all new homes sold under $125,000.

Industry commenters estimated that, taking the HOEPA proposal's APR and points and fees thresholds together, between 44 and 75 percent of recent manufactured home loan originations would be covered by HOEPA. The commenters stated that they would not originate such loans. Commenters stated

[81] The HOEPA Proposal proposed to implement the Dodd-Frank Act's amendments to HOEPA coverage exclusively in § 1026.32(a)(1) and to implement in § 1026.32(a)(2) the Dodd-Frank Act's amendments to TILA setting forth a new method for calculating APRs for determining HOEPA coverage (TILA section 103(bb)(1)(B)). In the final rule, § 1026.32(a)(2) is used for certain coverage exemptions and § 1026.32(a)(3) is used to implement the APR calculation for HOEPA coverage. Accordingly, the Bureau addresses comments received concerning proposed § 1026.32(a)(2) in the section-by-section analysis of § 1026.32(a)(3) below.

[82] Many commenters expressed similar concerns about a decrease in access to credit that they believe will occur as a result of the potentially expanded scope of HOEPA coverage under the revised high-cost mortgage coverage tests and/or the increased costs of complying with the enhanced prohibitions and protections for high cost mortgages. Those concerns are addressed in the section-by-section analyses of the applicable sections of this final rule.

that the cost of originating high cost mortgages (particularly the costs of making additional disclosures and the pre-loan counseling requirement), the ongoing costs of monitoring loans for compliance with HOEPA, and the legal, regulatory, and reputational risks associated with HOEPA would prevent them from originating high cost mortgages. At least one commenter stated that Congress's inclusion of manufactured housing in HOEPA coverage must have been an oversight.

Commenters thus suggested several ways that the Bureau might exempt manufactured housing from HOEPA coverage. Specifically, various commenters suggested exempting (1) All manufactured home loans, (2) purchase-money manufactured home loans, (3) personal property-secured manufactured home loans, or (4) real or personal property-secured manufactured home loans that do not contain terms or practices prohibited by HOEPA (for example, negative amortization or prepayment penalties). Commenters stated that the last exemption would be useful because, as a general matter, manufactured home loans do not contain such loan terms. Thus, consumers taking out manufactured home loans already are adequately protected, and manufactured home creditors would be relieved of the burden of monitoring for high-cost mortgage status and the attendant disclosures and other requirements (*e.g.,* counseling) that come with such status. In the alternative, commenters suggested that the Bureau provide a temporary exemption for manufactured housing until the Bureau obtains and analyzes data concerning the need for a permanent exemption.

The Bureau is finalizing § 1026.32(a) without any categorical exclusions for manufactured housing. Contrary to some industry commenters' suggestions, the plain language of HOEPA demonstrates that Congress specifically contemplated including manufactured home loans within HOEPA. The statutory definition of high-cost mortgage includes all consumer credit transactions secured by the consumer's principal dwelling (other than reverse mortgages); there is no limitation to real estate-secured loans. In fact, Congress specifically included an accommodation for a category of loans that are overwhelmingly comprised by manufactured housing loans by including a special, higher APR threshold for smaller transactions secured by personal property.

The Bureau acknowledges that, as described by industry commenters, manufactured home loans may not contain certain risky features that HOEPA is designed to combat. However, these or other risky or abusive practices could arise in manufactured home lending (as with most lending) in the future. In addition, the Bureau believes that it would be imprudent to exempt manufactured home loans from HOEPA coverage when HOEPA offers some of the strongest consumer protections for loans secured by a consumer's principal dwelling, when that dwelling is personal property. As discussed in the section-by-section analysis of § 1026.32(a)(1)(i)(A), approximately 77 percent of manufactured homes placed in the U.S. during 2011 were titled as personal property.[83] State and Federal laws generally provide fewer legal protections for personal property-secured loans, including fewer required disclosures to assist consumers in understanding the terms of their credit transactions. For example, as discussed earlier, laws governing foreclosure procedures typically do not apply to loans secured by personal property, and RESPA only partially applies to such loans. The relative lack of protections for manufactured home loans distinguish manufactured housing from the other transaction types that this final rule exempts from HOEPA coverage, as discussed below. Moreover, consumers shopping for a manufactured home may have fewer financing options than those available for site-built dwellings, particularly when the home is titled as personal property. Lower-income consumers with limited financing options may be particularly susceptible to any abusive practices that might arise in the market. Finally, as discussed in the section-by-section analysis of § 1026.32(a)(1)(i) and (ii) above, the Bureau is not persuaded that application of the HOEPA coverage thresholds will adversely affect access to manufactured home loans. The Bureau however, will monitor access to manufactured home credit. The Bureau believes that adjusting the coverage thresholds, if it obtains information indicating that such an adjustment is warranted, is more appropriate than adopting a wholesale exemption.

Personal property loans. As noted, a few industry commenters urged the Bureau to exempt loans secured by personal property such as houseboats or recreational vehicles from coverage under the final high-cost mortgage rule, even if such property is the consumer's principal dwelling. The commenters stated that financing personal property is a separate line of business from mortgage lending, with different risks and pricing, and that vendors that finance such property may not have the capacity to comply with HOEPA. For the reasons just discussed with respect to manufactured housing, the Bureau does not believe that it is appropriate to exempt loans secured by personal property from the high-cost mortgage rules. The Bureau believes that Congress has already balanced the competing considerations regarding coverage of this type of lending, and that this balance is reflected in the special APR threshold for smaller dollar, personal property-secured loans.

32(a)(2)(i)

Reverse Mortgages

Prior to the Dodd-Frank Act, TILA section 103(aa)(1) exempted reverse mortgages from coverage under HOEPA. The Dodd-Frank Act retained this exemption in re-designated TILA section 103(bb)(1)(A), and the HOEPA proposal would have implemented it in § 1026.32(a)(1) (*i.e.,* moving it from existing § 1026.32(a)(2)(ii) but making no substantive changes). One consumer group commenter requested that the Bureau revisit the reverse mortgage exemption either in this rulemaking or in the near future, citing particular concerns about increased fees in reverse mortgages. The Bureau declines to depart in this rulemaking from Congress's clear intent to retain the exemption of reverse mortgages from high-cost mortgage coverage. The Bureau notes that reverse mortgages currently are subject to additional disclosure rules under § 1026.33. The Bureau also notes that it anticipates undertaking a rulemaking to address how the Dodd-Frank Act Title XIV requirements apply to reverse mortgages, and any consumer protection issues in the reverse mortgage market may be addressed through such a rulemaking. Accordingly, the final rule adopts the proposed exemption for reverse mortgages as § 1026.32(a)(2)(i).

32(a)(2)(ii)

Construction Loans

As previously noted, TILA section 103(bb)(1), as amended by the Dodd-Frank Act, expanded HOEPA coverage to include purchase-money transactions. Proposed § 1026.32(a)(1) therefore would have expanded HOEPA coverage to all purchase-money transactions, including transactions to finance the initial construction of a consumer's principal dwelling. These ''construction

[83] *See* Selected Characteristics of New Manufactured Homes Placed by Region, 2011, at *http://www.census.gov/construction/mhs/pdf/char11.pdf.*

loans'' can take different forms. In some cases, creditors may provide ''construction-only'' loans, where only the construction of the dwelling is financed by the creditor. These loans commonly contain balloon structures and are often refinanced into permanent loans after completion of the construction. In other cases, creditors may provide ''construction-to-permanent'' loans, where both the construction and the permanent financing are extended by the same creditor. For these loans—which may be disclosed as two separate transactions or as a single transaction at the option of the creditor—the construction financing typically rolls into a permanent financing at the end of the construction phase. The Bureau did not propose different treatment of construction loans in the HOEPA proposal.

The Bureau received numerous comments from industry groups and banks, including a number of community banks, expressing concern that the expansion of HOEPA to include construction loans would unduly restrict access to home construction financing for consumers, with little to no corresponding consumer benefit. These commenters urged the Bureau to create an exemption to § 1026.32 for construction-only loans and the construction phase of construction-to-permanent loans, providing several bases for doing so.

First, industry groups and community banks argued that the short term nature of construction financing as well as typically higher interest and administrative fees associated with construction-only loans or the construction phase of a construction-to-permanent loan would result in large numbers of these loans falling under the new HOEPA APR threshold. These commenters generally asserted that access to credit for these loans would be reduced because most creditors, as a matter of policy, do not make high-cost mortgages. They also noted that an additional barrier exists to making a construction-only loan as a high-cost mortgage, because construction-only loans are typically structured as balloons with terms of 1–2 years, and proposed § 1026.32(d)(1) would have prohibited any such balloon payments on high-cost mortgages. Thus, independent of the various reasons creditors typically refrain from making high-cost mortgages, creditors would be barred from making any such construction-only loan as a high-cost mortgage in its usual form. One large bank indicated that 20 percent of its 2009–2012 construction-only loans would have been classified as high-cost mortgages under the new HOEPA APR criteria, and that it would not have made those loans had HOEPA applied.

Industry groups and community banks also asserted that construction loans should not be covered by HOEPA, largely because the predatory lending and abusive practices that compelled the passage of HOEPA do not exist for construction loans. Industry groups emphasized that construction loans typically involve more sophisticated consumers than ordinary residential mortgage loans and require more extensive coordination between the creditor, the home builder, and the home buyer, which they believe reduces the risk of abusive credit practices. As support for this position, these commenters noted that construction loans do not have the same history of abusive credit practices as other mortgage loans. In addition, industry groups argued that many of the protections afforded to borrowers under HOEPA—such as restrictions on acceleration, charging of fees for loan modifications or payoff statements, and negative amortization features—are generally inapplicable to construction loans.

The Bureau notes that these comments are consistent with the discussion in the Board's 2008 HOEPA Final Rule, 73 FR 44522, 44539 (July 30, 2008), which exempted construction loans from the higher-priced mortgage loan rules (*see* § 1026.35(a)(3)) for substantially the same reasons urged by industry. In that rule, the Board determined that construction loans typically have higher points, fees, and interest associated with them than other loan products, as well as shorter terms, which often results in construction loans having substantially higher APRs than other mortgage loan products. Thus, in the Board's view, applying § 1026.35 to construction loans would have resulted in an excessive number of construction loans being classified as higher-priced mortgage loans, which could discourage some creditors from extending such financing. In addition, the Board also found that construction loans do not present the same risk of abuse as other mortgage loans, and concluded that applying the higher-priced mortgage loan rules to construction loans could hinder some borrowers' access to construction financing without meaningfully enhancing consumer protection. 73 FR at 44539. Upon careful consideration of the Board's rulemaking and the public comments received on the Bureau's 2012 HOEPA Proposal, the Bureau similarly concludes that an exemption from HOEPA is warranted for construction loans.

The Bureau is adopting § 1026.32(a)(2)(ii) to exempt from HOEPA coverage loans to finance the initial construction of a consumer's principal residence, which includes both construction-only loans and the construction phase of construction-to-permanent loans. The Bureau is exempting such loans from coverage pursuant to its authority under TILA section 105(a), which grants the Bureau authority to exempt all or any class of transactions where necessary or proper to effectuate the purposes of TILA, to prevent evasion, or to facilitate compliance. The Bureau believes that exempting construction loans from the HOEPA restrictions set forth in §§ 1026.32 and 1026.34 is necessary and proper to effectuate the purposes of, and to facilitate compliance with, TILA, in accordance with TILA section 105(a). The Bureau believes that concerns discussed in the 2008 HOEPA Rule, such as hindering access to credit without meaningfully enhancing consumer protection, are equally applicable to construction financing transactions that otherwise would be high-cost mortgages. The Bureau further believes that adopting this final rule without an exemption for construction loans would discourage some creditors from participation in the construction financing business, thereby reducing competition to the detriment of consumers, without providing any meaningful corresponding consumer protection benefit. Accordingly, the Bureau believes that an exemption for construction loans will strengthen competition among financial institutions and promote economic stabilization.

The Bureau also is adopting comment 32(a)(2)(ii)–1 to provide further guidance on how the exemption applies to construction-to-permanent loans. Comment 32(a)(2)(ii)–1 explains that the § 1026.32(a)(2)(ii) exemption applies to both a construction-only loan and to the construction phase of a construction-to-permanent loan. However, the permanent financing that replaces a construction loan, whether extended by the same or a different creditor, is not exempt from HOEPA coverage. Under § 1026.17(c)(6)(ii), a creditor has the option to treat a construction-to-permanent loan as a single transaction or as multiple transactions for disclosure purposes, even when the same creditor extends both loans and a single closing occurs. Because only the construction phase is exempt from § 1026.32, the Bureau recognizes that the rule could present an incentive to

creditors to shift all or most upfront charges to the construction phase. However, the Bureau remains persuaded that construction loans do not present the same risk of abuse as do other loans. The Bureau also believes that market competition should minimize creditors' ability to engage in such evasion because those creditors should be unable to capture much of the construction market where other creditors offering construction-only financing will tend to have superior pricing. Nevertheless, the Bureau intends to monitor the construction financing market going forward for signs that circumvention may be occurring and, if so, may take future action regarding the exclusion for the construction phase of construction-to-permanent financing.

32(a)(2)(iii)

Housing Finance Agency Loans

As noted above, Congress amended TILA to expand the types of loans subject to HOEPA coverage and to revise HOEPA's coverage tests. In doing so, Congress did not provide any exemptions from HOEPA coverage for any State or other government agencies, either in TILA section 103(bb) or 129. However, until Congress changed the scope of HOEPA's coverage, few if any of their activities were covered.

Certain commenters, including an association of State housing finance authorities, urged the Bureau to exempt loans financed by Housing Finance Agencies (HFAs). These commenters observed that HFAs operate as public entities in every State and that, as agencies and instrumentalities of government, they have a unique mission to provide safe and affordable financing. In addition, the commenters stated, loans financed by HFAs tend to perform better than other loans. The commenters stated that many loans financed by HFAs would be unlikely to meet any of HOEPA's coverage tests. On the other hand, according to the commenters, many HFAs offer smaller-loan-amount products that, for example, finance the purchase of manufactured homes in rural areas or support critical repairs and renovations. Because the principal amounts of such loans are so low, the commenters expressed concern that even reasonable fees to offset origination and administrative costs might make many of the loans high-cost mortgages, which in turn could prevent the HFAs from originating the loans. In turn, consumers might turn to financing through costlier forms of credit. The commenters stated that the risk of exempting loans originated under such programs from HOEPA coverage is low because sufficient protections are provided by HFAs' normal lending practices.

The Bureau adopts in the final rule an exemption from HOEPA for transactions that are directly financed by an HFA, as that term is defined in 24 CFR 266.5.[84] The Bureau adopts this exemption pursuant to its authority under TILA section 105(a) to exempt all or any class of transactions where necessary or proper to effectuate the purposes of TILA, to prevent evasion, or to facilitate compliance. The Bureau believes that this exemption is necessary and proper to effectuate the purposes of TILA to avoid the uninformed use of credit by ensuring that borrowers seeking to obtain fair and affordable loans originated and financed directly by HFAs are not driven to other, costlier and riskier forms of credit.

HFAs are quasi-governmental entities, chartered by either a State or a municipality, that engage in diverse housing financing activities for the promotion of affordable housing. Some HFAs are chartered to promote affordable housing goals across an entire State, while others' jurisdiction extends to only particular cities or counties.[85] Among other activities designed to promote affordable homeownership, HFAs provide financial assistance to consumers through first-lien mortgage loans, subordinate-loan financing, and down payment assistance programs (*e.g.,* a loan to the consumer to assist with the consumer's down payment, or to pay for some of the closing costs). The Bureau understands that HFA lending is characterized by low-cost financing, evaluation of a consumer's repayment ability, and homeownership counseling.[86]

The Bureau understands that, in most cases, HFAs partner with creditors, such as local banks, that extend credit pursuant to the HFA program guidelines. HFAs generally do not provide direct financing to consumers. Nonetheless, the Bureau's exemption of HFAs from HOEPA coverage extends only to those transactions where the HFA itself provides direct financing. Transactions made pursuant to a program administered by an HFA but that are financed by private creditors are still subject to HOEPA coverage. Although the details of HFA programs may differ from State to State, the Bureau believes that consumers in loans where a government-chartered agency is the creditor are sufficiently protected from the types of abuse that HOEPA was designed to address. The Bureau acknowledges that loans financed by private entities in partnership with HFAs may also have significant consumer protections, however the Bureau believes that it is important to retain HOEPA protections for such loans because the HFA does not directly control the transaction.

32(a)(2)(iv)

USDA Rural Loans

As noted in the section-by-section analysis of § 1026.32(a)(2)(iii) above, Congress amended TILA to expand the types of loans subject to high-cost mortgage coverage and to revise the high-cost mortgage coverage tests. In doing so, Congress did not provide any exemptions from HOEPA coverage for loans originated by the Federal government, such as through the USDA Rural Housing Service, either in TILA section 103(bb) or 129. However, until Congress changed the scope of high-cost mortgage coverage, few if any of their activities were covered.

The Bureau received one comment concerning USDA Rural Housing Service loans. Specifically, the industry commenter suggested that the Bureau exempt (or adjust the APR and points and fees thresholds for) loans issued under the USDA Guaranteed Rural Housing Program. This commenter noted that such loans carry enhanced consumer protections, such as maximum interest rates that must track closely to prime, and that they tend to be for small dollar amounts. The commenter expressed concern about the points and fees threshold because loans originated through the USDA Rural Housing Service program tend to be for smaller dollar amounts and thus a relatively higher percentage of their loan amount may be counted toward the points and fees threshold.

The Bureau declines to exempt loans issued under the USDA Guaranteed Rural Housing Program. However, upon further consideration and for reasons similar to those discussed in the section-by-section analysis of § 1026.32(a)(2)(iii) concerning loans originated by HFAs where the HFA is the creditor, the Bureau adopts in

[84] Pursuant to 24 CFR 266.5, an HFA is defined as ''any public body, agency, or instrumentality created by a specific act of a State legislature or local municipality empowered to finance activities designed to provide housing and related facilities, through land acquisition, construction or rehabilitation.''

[85] For example, the Louisiana Housing Corporation administers affordable housing programs across all of Louisiana, while The Finance Authority of New Orleans administers programs only in Orleans Parish. *See www.lhfa.state.la.us* and *www.financeauthority.org.*

[86] The vast majority of HFA loans are fixed-rate, fully-amortizing, fully-documented conforming loans.

§ 1026.32(a)(2)(iv) in the final rule an exemption for loans originated through the USDA's Rural Housing Service section 502 Direct Loan Program. The Bureau adopts this exemption pursuant to its authority under TILA section 105(a) to exempt all or any class of transactions where necessary or proper to effectuate the purposes of TILA, to prevent evasion, or to facilitate compliance. The Bureau believes that this exemption is necessary and proper to effectuate the purposes of TILA to avoid the uninformed use of credit by ensuring that borrowers seeking to obtain fair and affordable loans through government programs are not driven to other, costlier forms of credit. The Bureau believes that the protections afforded consumers in the section 502 Direct Loan Program, where the Federal government is the creditor, are sufficiently protected from the types of abuse that HOEPA was designed to address. As noted, however, the Bureau does not at this time adopt an exemption in § 1026.32(a)(2)(iv) to loans issued under the USDA Guaranteed Rural Housing Program.

32(a)(3) Determination of Annual Percentage Rate

Prior to the Dodd-Frank Act, TILA did not specify how to calculate the APR for purposes of HOEPA's APR coverage test. The Dodd-Frank Act changed this by adding section 103(bb)(1)(B) to TILA. Section 103(bb)(1)(B) instructs creditors to use one of three methods to determine the interest rate for purposes of calculating the APR for high-cost mortgage coverage. The method that the creditor must use depends on whether the transaction is fixed- or variable-rate and, if the transaction is variable-rate, the manner in which the transaction's rate may vary (*i.e.,* in accordance with an index or otherwise). Under TILA section 103(bb)(1)(B)(i) through (iii), the APR for the high-cost mortgage APR coverage test shall be determined based on the following interest rates, respectively: (1) In the case of a fixed-rate transaction in which the APR will not vary during the term of the loan, the interest rate in effect on the date of consummation of the transaction; (2) in the case of a transaction in which the rate of interest varies solely in accordance with an index, the interest rate determined by adding the index rate in effect on the date of consummation of the transaction to the maximum margin permitted at any time during the loan agreement; and (3) in the case of any other transaction in which the rate may vary at any time during the term of the loan for any reason, the interest charged on the transaction at the maximum rate that may be charged during the term of the loan.

The Bureau proposed to implement TILA section 103(bb)(1)(B) in § 1026.32(a)(2) and related commentary. Specifically, proposed § 1026.32(a)(2)(i) would have implemented TILA section 103(bb)(1)(B)(i) concerning fixed-rate transactions; proposed § 1026.32(a)(2)(ii) would have implemented TILA section 103(bb)(1)(B)(ii) concerning transactions that vary with an index; and proposed § 1026.32(a)(2)(iii) would have implemented TILA section 103(bb)(1)(B)(i) concerning other transactions with rates that vary. As discussed in the section-by-section analysis of § 1026.32(a)(2) above, the Bureau retains existing § 1026.32(a)(2) in the final rule to provide certain categorical coverage exemptions. Thus, the Bureau adopts proposed § 1026.32(a)(2) and comments 32(a)(2)–1 and –2 as § 1026.32(a)(3) and comments 32(a)(3)–1 and –2 in the final rule, with several revisions as discussed below.

First, as noted above, TILA section 103(bb)(1)(B) describes how to calculate the APR for the high-cost mortgage APR coverage test. Thus, the statute references the ''annual percentage rate of interest.'' Proposed § 1026.32(a)(2) would have implemented TILA section 103(bb)(1)(B) by referencing both the ''annual percentage rate'' and the ''transaction coverage rate,'' as applicable. Proposed § 1026.32(a)(2) referenced both phrases because, as noted in the section-by-section analysis of proposed § 1026.32(a)(1)(i) above, the proposed APR coverage test contained two alternatives that would have required creditors to compare a transaction's APR or transaction coverage rate, respectively, to the average prime offer rate. Because the Bureau is not finalizing the expanded finance charge in connection with its January 2013 rulemakings, the Bureau finalizes § 1026.32(a)(3) with references only to the APR, rather than to both the APR and the transaction coverage rate.

Second, as noted above, TILA section 103(bb)(1)(B) instructs creditors to calculate a transaction's APR based on the interest rate (for a fixed-rate transaction) or index rate (for a transaction that varies with an index) in effect on the date of consummation of the transaction. Proposed § 1026.32(a)(2) would have referred not only to ''consummation,'' but also to ''account opening'' to reflect the fact that the requirement also applies to HELOCs. The Bureau received no comments on its inclusion of the phrase ''account opening'' and therefore incorporates that phrase into final § 1026.32(a)(3) as proposed.

The Bureau did, however, receive a number of comments stating that the proposal's requirement to use the interest rate or (for variable-rate transactions) the index rate in effect as of consummation or account opening for purposes of calculating the APR for HOEPA coverage would be unworkable as a practical matter. These commenters noted that a creditor may not know until the last minute what index rate to use for purposes of determining HOEPA coverage, and if the index rate changed at the last minute such that the loan became a high-cost mortgage, closing would need to be delayed to comply with the requirement to provide the high-cost mortgage disclosures. The commenters further noted that a different standard—the index rate in effect as of the date the rate for the transaction is set—is used elsewhere in Regulation Z for similar APR determinations, including for determining coverage as a higher-priced mortgage loan under § 1026.35.

Under TILA section 105(a), the Bureau's regulations may contain additional requirements, classifications, differentiations, or other provisions, and may provide for such adjustments and exceptions for all or any class of transactions, that the Bureau judges are necessary or proper to effectuate the purposes of TILA, to prevent circumvention or evasion thereof, or to facilitate compliance. Pursuant to its authority to make adjustments to facilitate compliance with the TILA, the Bureau adopts in § 1026.32(a)(3)(i) and (ii), respectively, a requirement that creditors use the interest rate or index rate in effect as of the date the interest rate for the transaction is set (*i.e.,* the rate-set date), rather than as of consummation as provided in TILA section 103(bb)(1)(B). The Bureau recognizes that, as commenters pointed out, it likely would not be practicable for creditors to wait until consummation or account opening to determine with certainty the applicable interest or index rate to be used for the high-cost mortgage coverage test. Creditors must be able to determine with certainty prior to this time whether a transaction is a high-cost mortgage. The Bureau further acknowledges that other coverage tests under Regulation Z, such as the test for higher-priced mortgage loans under § 1026.35, require creditors to use the rate-set date and believes that it is useful to harmonize the HOEPA APR coverage test with those rules. Thus, providing that the interest or index rate be the rate in effect on the date that the

rate for the transaction is set will facilitate compliance, consistent with TILA section 105(a).

Proposed comment 32(a)(2)–1 would have made clear that creditors are required to use § 1026.32(a)(2), rather than existing guidance in comment 17(c)(1)–10.i, to calculate the APR for discounted and premium variable-rate loans. Proposed comment 32(a)(2)–2 would have clarified that the APR for a HELOC must be determined in accordance with § 1026.32(a)(2), regardless of whether there is an advance of funds at account opening. Proposed comment 32(a)(2)–2 further would have clarified that § 1026.32(a)(2) does not require HELOC creditors to calculate the APR for any extensions of credit subsequent to account opening. In other words, any draw on the credit line subsequent to account opening is not considered to be a separate open-end ''transaction'' for purposes of determining whether the transaction is a high-cost mortgage under the APR coverage test.

Proposed comment 32(a)(2)–4 would have clarified the application of § 1026.32(a)(2) for home-equity plans that offer fixed-rate and -term repayment options. As noted in the proposal, some variable-rate HELOC plans may permit borrowers to repay a portion or all of their outstanding balance at a fixed-rate and over a specified period of time. Proposed comment 32(a)(2)–4 would have clarified that, if a HELOC has only a fixed rate during the draw period, the creditor must use that fixed rate to determine the plan's APR, as required by proposed § 1026.32(a)(2)(i). If during the draw period, however, a HELOC has a variable rate but also offers a fixed-rate and -term payment option, a creditor must use the terms applicable to the variable-rate feature to determine the plan's APR, as described in proposed § 1026.32(a)(2)(ii). The Bureau received no comments on proposed comments 32(a)(2)–1, –2, or –4 and finalizes them as proposed, except that the Bureau re-numbers the comments as 32(a)(3)–1, –2, and –5 in the final rule.

32(a)(3)(i)

TILA section 103(bb)(1)(B) requires that, in connection with a fixed-rate transaction in which the APR will not vary during the term of the loan, the APR must be based on the interest rate in effect on the date of consummation. As discussed above, proposed § 1026.32(a)(2)(i) would have required that the calculation of the APR for a fixed-rate transaction be based on the interest rate in effect on the date of consummation or account opening. The Bureau received no comments specifically addressing proposed § 1026.32(a)(2)(i). The Bureau thus finalizes § 1026.32(a)(3)(i) substantially as proposed, but with the clarification noted in the section-by-section analysis of § 1026.32(a)(3) above (*i.e.,* that the interest rate is measured as of the date the interest rate for the transaction is set).

32(a)(3)(ii)

Proposed § 1026.32(a)(2)(ii) would have implemented TILA section 103(bb)(1)(B)(ii)'s requirements for calculating APRs for transactions in which the interest rate varies solely in accordance with an index. As noted above, pursuant to TILA section 103(bb)(1)(B)(ii), the APR for such transactions must be based on the interest rate that is determined by adding the maximum margin permitted at any time during the loan agreement to the index rate in effect on the date of consummation (*i.e.,* the fully-indexed rate). Proposed § 1026.32(a)(2)(ii) would have implemented this provision with the additional qualification that it applies only in the case of a transaction in which the interest rate can vary during the term of the loan or plan in accordance with an index outside the creditor's control.

The Bureau believed that the proposed qualification would have helped to differentiate TILA section 103(bb)(1)(B)(ii) concerning rates that vary with an index from TILA section 103(bb)(1)(B)(iii) concerning rates that ''may vary at any time during the term of the loan for any reason.'' *See* the section-by-section analysis of § 1026.32(a)(3)(iii) below. Specifically, because interest rates for variable-rate HELOCs are prohibited under TILA section 137(a) (as implemented by § 1026.40(f)) from varying pursuant to an index that is within the creditor's control, the Bureau believed that adding the language ''outside the creditor's control'' to proposed § 1026.32(a)(2)(ii) would have clarified that APRs for variable-rate HELOCs should be determined according to § 1026.32(a)(2)(ii) rather than § 1026(a)(2)(iii).

Additionally, the Bureau proposed to adopt the clarification pursuant to its authority under TILA 105(a) to prevent circumvention of coverage under HOEPA. The Bureau noted that if the index were in the creditor's control, such as the creditor's own prime lending rate, a creditor might set a low index rate for purposes of § 1026.32(a)(2)(ii) and thereby avoid classification as a high-cost mortgage. However, subsequent to consummation, the creditor could set a higher index rate, at any time, which would have triggered coverage as a high-cost mortgage under § 1026.32(a)(2)(ii) if it were in effect at consummation. Accordingly, the proposal would have provided that, if the interest rate varies in accordance with an index that is under the creditor's control, the creditor would determine the APR under § 1026.32(a)(2)(iii), not § 1026.32(a)(2)(ii).

Proposed comment 32(a)(2)–3 would have provided additional guidance on the application of § 1026.32(a)(2)(ii) and (iii) to mortgage transactions with interest rates that vary. Specifically, proposed comment 32(a)(2)–3.i would have provided that proposed § 1026.32(a)(2)(ii) applies when the interest rate is determined by an index that is outside the creditor's control. In addition, proposed comment 32(a)(2)–3.i would have clarified that even if the transaction has a fixed, discounted introductory or initial interest rate, proposed § 1026.32(a)(2)(ii) requires adding the contractual maximum margin to the index, without reflecting the introductory rate. Proposed comment 32(a)(2)–3.i also would have provided that the maximum margin means the highest margin that might apply under the terms of the credit transaction. For example, if the terms of the credit transaction provide that a borrower's margin may increase by 2 percentage points if the borrower's employment with the creditor ends, then the creditor must add that higher margin to the index to determine HOEPA coverage.

The Bureau received a number of comments on proposed § 1026.32(a)(2)(ii) and (iii). Consumer groups generally advocated that the Bureau depart from the statute by requiring creditors to use the maximum rate permitted under the terms of the mortgage loan or HELOC for all variable-rate transactions. The consumer groups observed that creditors have better information than consumers to predict when interest rates will increase and that, if a consumer could at any time during the term of the loan or credit plan be required to make payments based on an APR within the high-cost mortgage range, the consumer should receive the protections associated with such mortgages.

One industry commenter objected to the requirement to recalculate a distinct variable-rate APR solely for purposes of high-cost mortgage coverage, rather than using the composite rate calculation set forth in existing § 1026.17(c)(1)–10.i. The commenter stated that performing an extra calculation would be extremely

burdensome and would introduce additional opportunities for error into the loan origination process.

Two industry commenters objected to the requirement that the index be ''outside the creditor's control'' for purposes of proposed § 1026.32(a)(2)(ii), noting that internal indices are used by certain closed-end creditors to price loans to reflect local economic conditions and by, for example, members of the Farm Credit System.

Several industry commenters requested clarification about whether rate floors or caps would cause the index to vary in a manner within the creditor's control, such that a creditor originating a loan or credit plan with such features would need to calculate the APR for HOEPA coverage using the maximum rate that could be imposed over the life of the loan under proposed § 1026.32(a)(2)(iii). These commenters expressed particular concern about floor rates in HELOCs, noting that most variable-rate HELOCs provide for such a floor rate, even when the rate otherwise varies solely with an index outside the creditor's control. Commenters stated that it would be inappropriate to require HELOC creditors to use the maximum rate applicable over the life of the HELOC under proposed § 1026.32(a)(2)(iii) (which often may be the State usury cap) and thereby classify large numbers of HELOCs as high-cost mortgages merely because the credit plan provides for a rate floor.

Other industry commenters requested that the Bureau specify that, if a transaction has an introductory rate that is higher than the fully-indexed rate, creditors must use the introductory rate for the APR calculation. Finally, some industry commenters expressed general concern about undue coverage of loans under HOEPA as a result of the requirement in proposed § 1026.32(a)(2)(iii) to look to the maximum rate for certain variable-rate transactions and general uncertainty about the application of proposed § 1026.32(a)(2) to HELOCs.

The Bureau is renumbering proposed § 1026.32(a)(2)(ii) as § 1026.32(a)(3)(ii), and finalizing follows. First, notwithstanding consumer groups' comments, the Bureau declines to adopt a final rule that would require creditors generally to use the maximum rate applicable during the life of the loan (*i.e.,* as opposed to the fully-indexed rate) for determining high-cost mortgage coverage. The Bureau understands that creditors originating variable-rate transactions are required to disclose the maximum rate possible during the loan term and that industry practice typically is to disclose the highest rate permissible under State law. The Bureau does not believe that Congress intended all such variable-rate transactions to be classified as high-cost mortgages and believes that the final rule strikes the appropriate balance between the concerns of industry and those of consumer groups.

Second, notwithstanding industry's complaints about the burdens of performing an additional calculation, the Bureau implements in the final rule the statutory requirement to calculate APRs for high-cost mortgage coverage pursuant to the requirements set forth in TILA section 103(bb)(1)(B)(ii) and (iii), rather than in accordance with the rules for composite APRs for disclosure purposes under § 1026.17. The Bureau acknowledges that the final rule may require creditors to conduct an additional calculation to determine high-cost mortgage coverage for variable-rate transactions. However, the Bureau believes that Congress made a deliberate decision to depart from the general APR calculation, to ensure that introductory rates not be given undue weight in determining whether a transaction is a high-cost mortgage. Despite the additional burden associated with a different calculation, the Bureau does not believe that avoidance of an additional calculation is a sufficient basis to use its exception authority to depart from the clear intent of the statute.

Third, the Bureau does not adopt in the final rule the proposed requirement that variations in an index must be ''outside the creditor's control'' for § 1026.32(a)(3)(ii) to apply. The Bureau is not certain, at present, that the risk of evasion requires adding this limitation. As noted, TILA section 137 and § 1026.40(f) already prohibit variable-rate HELOCs from employing an index that varies outside the creditor's control. Use of internal indices is also restricted or prohibited for closed-end, variable-rate transactions in many circumstances. Federal regulations significantly restrict the circumstances under which federally-chartered banks and thrifts may use an index within the creditor's control. For example, Office of the Comptroller of the Currency regulations generally require national banks to use an index for ARMs that is ''readily available to, and verifiable by, the borrower and beyond the control of the bank.'' 12 CFR 34.22(a). Single-family seller/servicer guides published by the Government Sponsored Enterprises (GSEs) also indicate that ARMs must be tied to publicly-available indices. Finally, the Alternative Mortgage Transactions Parity Act (AMTPA) provides restrictions on the use of internal indices. AMTPA authorizes state-licensed or -chartered housing creditors to make alternative mortgage transactions such as ARMs in compliance with Federal rather than State law, in order to establish parity and competitive equality between State and Federal lenders. However, AMTPA provides that an ARM cannot benefit from the preemptive effect of Federal law over more restrictive State law unless the transaction uses an index outside the creditor's control or a formula or schedule identifying the amount by which the rate or finance charge can increase and when a change can occur.[87] Finally, based on the public comments received, there appear to be legitimate, if infrequent, circumstances under which creditors use internally-defined indices. Adopting a requirement in this rule that effectively would require all creditors originating variable-rate transactions to use an index outside the creditor's control would cause disruption, for example, to Farm Credit System programs. The Bureau notes, however, that it will continue to monitor whether such a restriction would be sensible as a general matter for closed-end transactions and may revisit the issue in future rulemakings.[88]

Comment 32(a)(3)–3 provides guidance concerning the application of § 1026.32(a)(3)(ii). Comment 32(a)(3)–3 clarifies that the interest rate for a transaction varies solely in accordance with an index even if the transaction has an introductory rate that is higher or lower than the fully-indexed rate provided that, following the first rate adjustment, the interest rate for the transaction varies solely in accordance with an index. The comment specifies that, for transactions subject to § 1026.32(a)(3)(ii), the interest rate generally is determined by adding the index rate in effect on the date that the interest rate for the transaction is set to the maximum margin for the transaction, as set forth in the agreement for the loan or plan. However, if a transaction subject to § 1026.32(a)(3)(ii) has an introductory rate that is higher than the index rate plus the maximum margin for the transaction as of the date the interest rate for the transaction is set, then the interest rate for the APR determination is the higher, initial (or ''premium'') interest rate.

[87] *See* 76 FR 44226 (July 22, 2011).

[88] In this regard, the Bureau notes that the Board solicited comment on whether to prohibit the use of an index under a creditor's control for a closed-end ARM in connection with its 2010 Mortgage Proposal, 75 FR 58539 (Sept. 24, 2010). The Bureau has inherited the Board's proposal as part of the transfer of authority for TILA under the Dodd-Frank Act.

The Bureau agrees with comments received that use of the introductory rate is the appropriate measure under this circumstance and notes that this approach aligns with the definition of ''fully-indexed rate'' as adopted in the Bureau's 2013 ATR Final Rule. Section 1026.43(c)(5) of that rule implements the payment calculation requirements of TILA section 129C(a), which contains the general requirement that a creditor determine a consumer's ability to repay a mortgage loan. Specifically, § 1026.43(c)(5) and comment 43(c)(5)(i)–2 of the 2013 ATR Final Rule explain that a creditor must determine a consumer's repayment ability with respect to substantially equal, monthly, fully amortizing payments that are based on the greater of the fully indexed rate or any introductory interest rate.

Comment 32(a)(3)–3.iii provides several examples to illustrate the rule. As described in the examples, creditors should use § 1026.32(a)(3)(ii) notwithstanding the existence of a rate floor or a rate cap on a variable-rate transaction that otherwise varies in accordance with an index. The Bureau believes that the clarification concerning rate floors and rate caps is useful and will promote clarity in applying the rule, notwithstanding the removal of the requirement that the index must be outside the creditor's control for § 1026.32(a)(3)(ii) to apply. Comment 32(a)(3)–3.iii also notes by way of example that an open-end credit plan may not have a rate that varies other than in accordance with an index, pursuant to existing rules for home-secured open-end credit in § 1026.40(f).

32(a)(3)(iii)

Proposed § 1026.32(a)(2)(iii) would have required that, for a loan in which the interest rate may vary during the term of the loan, other than a loan as described in proposed § 1026.32(a)(2)(ii) (for credit where the rate may vary solely in accordance with an index), the annual percentage rate must be based on the maximum interest rate that may be imposed during the term of the loan. Proposed comment 32(a)(2)–3.ii would have clarified that § 1026.32(a)(2)(iii) applies when the interest rates applicable to a transaction may vary, except as described in proposed § 1026.32(a)(2)(ii). Proposed comment 32(a)(2)–3.ii thus would have specified that proposed § 1026.32(a)(2)(iii) would apply, for example, to a closed-end credit transaction when interest rate changes are at the creditor's discretion or where multiple fixed rates apply to a transaction, such as a step-rate mortgage, in which specified fixed rates are imposed for specified periods.

The Bureau sought comment on its proposals for determining the APR for HOEPA coverage, including on whether any aspect of the proposal could result in unwarranted, over-inclusive HOEPA coverage of HELOCs. In particular, the Bureau noted (as discussed above) that § 1026.40(f) and its commentary generally prohibit creditors from changing the APR on a HELOC unless the change is based on a publicly-available index outside the creditor's control or unless the rate change is specifically set forth in the agreement, such as step-rate plans. The proposal noted that Regulation Z's HELOC restrictions would effectively limit the application of proposed § 1026.32(a)(2)(iii) primarily to certain types of closed-end credit transactions. The Bureau observed that applying proposed § 1026.32(a)(2)(iii) to determine the APR for a variable-rate HELOC could result in over-inclusive coverage of HELOCs under HOEPA because the maximum possible interest rate for many variable-rate HELOCs is pegged to the maximum interest rate permissible under State law. That interest rate, in turn, likely would cause the plan's APR to exceed HOEPA's APR threshold. Therefore, the Bureau solicited comment on whether there were any circumstances in which the terms of a variable-rate HELOC might warrant application of proposed § 1026.32(a)(2)(iii) and, if so, whether additional clarification would be necessary to avoid unwarranted coverage of HELOCs under HOEPA.

The Bureau received no comments on proposed § 1026.32(a)(2)(iii) apart from those addressed above in connection with § 1026.32(a)(3)(ii) and thus finalizes § 1026.32(a)(3)(iii) as proposed with minor revisions for clarity.

32(b) Definitions

32(b)(1) and (2)

Points and Fees—General

Section 1431(c)(1) of the Dodd-Frank Act revised and added certain items to the definition of points and fees for purposes of determining whether a transaction exceeds the HOEPA points and fees threshold. *See* TILA section 103(bb)(4).[89] As discussed in detail in the Bureau's 2013 ATR Final Rule, section 1412 of the Dodd-Frank Act also amended TILA to add new provisions that require creditors to consider consumers' ability to repay and that create a new type of closed-end credit transaction, a ''qualified mortgage.'' Among other requirements, under new TILA section 129C(b)(2)(A)(vii), to be a qualified mortgage, a transaction must have points and fees payable in connection with the loan that generally do not exceed three percent of the total loan amount. In turn, ''points and fees'' for purposes of qualified mortgages means ''points and fees'' as defined by HOEPA.[90]

As noted in the 2012 HOEPA Proposal, the Board proposed to implement the Dodd-Frank Act's amendments to the definition of points and fees for both qualified mortgages and high-cost mortgages as part of its 2011 ATR Proposal. Thus, for example, the 2011 ATR Proposal would have implemented the Dodd-Frank Act's exclusion of certain private mortgage insurance (PMI) premiums from points and fees, as well as added loan originator compensation and prepayment penalties to that definition. The Board proposed to implement those changes in § 226.32(b)(1) and (2)[91] and to revise and add corresponding commentary.[92]

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[89] As noted in the preamble to the proposal, the Dodd-Frank Act renumbered TILA section 103(aa)(1)(B) concerning points and fees for high-cost mortgages as 103(bb)(1)(A)(ii). However, the Dodd-Frank Act did not amend existing TILA section 103(aa)(4) (the provision that defines points and fees) to reflect this new numbering. Thus, TILA section 103(bb)(4) provides that ''[f]or purposes of paragraph [103(bb)](1)(B), points and fees shall include . * * *'' TILA section 103(bb)(1)(B), however, concerns the calculation of the APR for HOEPA coverage. To give meaning to the statute as amended, the Bureau interprets TILA section 103(bb)(4) as cross-referencing the points and fees coverage test in TILA section 103(bb)(1)(A)(ii), rather than the APR calculation in TILA section 103(bb)(1)(B).

[90] *See* TILA section 129C(b)(2)(A)(vii) and (C)(i) (setting forth points and fees requirements for qualified mortgages). TILA section 129C(b)(2)(C)(i) cross-references the definition of points and fees in TILA section 103(aa)(4), which the Dodd-Frank Act re-designated as TILA section 103(bb)(4).

[91] Whereas the Bureau's Regulation Z is codified at 12 CFR part 1026, the Board's Regulation Z was codified at 12 CFR part 226.

[92] *See* 76 FR 27390, 27398–406, 27481–82, 27487–89 (May 11, 2011). In its 2011 ATR Proposal, the Board noted that its proposed amendments to § 226.32(b)(1) and (2) were limited to the definition of points and fees and that the 2011 ATR Proposal was not proposing to implement any of the other high-cost mortgage amendments in TILA. *See id.* at 27398. Thus, the Board noted that, if its ATR Proposal were finalized prior to the rule on high-cost mortgages, the calculation of the points and fees threshold for qualified mortgages and high-cost mortgages would be different, but the baseline definition of points and fees would be the same. *See id.* at 27399. For example, the Board's 2011 ATR Proposal did not propose to implement the statutory changes to the points and fees threshold for high-cost mortgages that exclude from the threshold calculation ''bona fide third-party charges not retained by the mortgage originator, creditor, or an affiliate of the creditor or mortgage originator'' and that permit creditors to exclude certain ''bona fide discount points,'' even though the Board proposed to implement identical provisions of the Dodd-Frank Act defining the points and fees threshold for qualified mortgages. *See id.* at 27398–99.

When the Bureau issued its 2012 HOEPA Proposal, the Bureau was in the process of finalizing the Board's 2011 ATR Proposal, including evaluating comments received concerning the Board's proposed amendments to the definition in Regulation Z of points and fees, § 226.32(b)(1) and (2). The Bureau believed that issuing separate, different proposals to implement the Dodd-Frank Act's amendments to the definition of points and fees, one for high-cost mortgages and one for qualified mortgages, had the potential to cause compliance burden and uncertainty. The Bureau nevertheless needed to address in the 2012 HOEPA Proposal certain aspects of the points and fees definition, most significantly the interaction of points and fees with the Bureau's proposed more inclusive definition of the finance charge, the application of points and fees to HELOCs, and the correction of certain internal cross-references.

To address those issues while also attempting to minimize uncertainty, the Bureau republished in the 2012 HOEPA Proposal the Board's proposed amendments to § 226.32(b)(1) and (2) substantially as set forth in the Board's 2011 ATR Proposal, with revisions only to address the issues noted above and to conform terminology to existing Regulation Z provisions. The Bureau noted in its 2012 HOEPA Proposal that it was particularly interested in receiving comments concerning any newly-proposed language and the application of the definitions in proposed § 1026.32(b)(1) and (2) to the high-cost mortgage context.

The Bureau received numerous comments concerning proposed § 1026.32(b)(1) and (2) from both industry and consumer groups, the majority of which did not specifically address newly-proposed language or to the application of the definition to the high-cost mortgage context. The comments largely reiterated comments that the Board and the Bureau had received in response to the 2011 ATR Proposal. For example, commenters generally requested greater clarity with respect to whether certain charges (*e.g.,* charges not known at consummation) must be counted in points and fees. Industry commenters also requested that the Bureau either exclude or limit the amount of certain types of charges that must be included (*e.g.,* affiliate charges and loan originator compensation). The Bureau addresses below the comments received in response to proposed § 1026.32(b)(1) and (2) in the 2012 HOEPA Proposal. Similarly, comments received concerning these same provisions as they relate to the Board's 2011 ATR Proposal are addressed in the Bureau's 2013 ATR Final Rule. The Bureau is coordinating the 2013 HOEPA and 2013 ATR Final Rules to ensure a consistent and cohesive regulatory framework for points and fees. Thus, the 2013 ATR Final Rule is publishing regulation text and commentary concerning the definition of points and fees for closed-end credit transactions, as adopted by that rulemaking in § 1026.32(b)(1). Regulation text and commentary for § 1026.32(b)(1), though discussed in the section-by-section analysis below, is not republished in this **Federal Register** notice but instead is indicated with asterisks.

32(b)(1)

Closed-End Points and Fees

Existing § 1026.32(b)(1) defines ''points and fees'' by listing included charges in § 1026.32(b)(1)(i) through (iv).[93] As discussed below, the Board's 2011 ATR Proposal would have revised § 226.32(b)(1)(i) through (iv) to reflect amendments to TILA by the Dodd-Frank Act, and would have added new § 226.32(b)(1)(v) and (vi) concerning the inclusion in points and fees of certain prepayment penalties. The Bureau's 2012 HOEPA Proposal would have amended existing § 1026.32(b)(1), as that provision was proposed in the 2011 ATR Proposal, to clarify that the charges listed in proposed § 1026.32(b)(1) are the charges that must be included in the points and fees calculation for closed-end credit transactions. (The Bureau's 2012 HOEPA Proposal would have set forth a separate definition of points and fees for HELOCs in proposed § 1026.32(b)(3)).[94] As discussed below, the Bureau is adopting proposed § 1026.32(b)(1) in the 2013 ATR Final Rule with certain changes to respond to concerns raised by commenters. Final § 1026.32(b)(1) as adopted in the 2013 ATR Final Rule clarifies, as proposed, that the provision applies to closed-end credit transactions.[95]

Payable at or before consummation. Section 1431(a) of the Dodd-Frank Act amended the HOEPA points and fees coverage test in TILA section 103(bb)(1)(A)(ii) by providing for the inclusion in points and fees for high-cost mortgages of ''the total points and fees payable *in connection with the transaction,*'' as opposed to ''the total points and fees payable by the consumer *at or before closing*'' (emphases added). The 2012 HOEPA Proposal would have implemented this change in proposed § 1026.32(a)(1)(ii). The Bureau noted in its 2012 HOEPA proposal that the practical result of this change would have been that—unless otherwise specified—any item listed in the points and fees definitions for closed- and open-end credit transactions would have been counted toward the points and fees threshold for high-cost mortgages even if the item were payable after consummation or account opening. The exceptions would have been certain mortgage insurance premiums and charges for credit insurance and debt cancellation and suspension coverage. TILA expressly states that those premiums and charges are included in points and fees only if payable at or before closing. *See* TILA section 103(bb)(1)(C) (mortgage insurance) and TILA section 103(bb)(4)(D) (credit insurance and debt cancellation and suspension coverage).

The Bureau's proposed inclusion in points and fees for high-cost mortgages of ''the total points and fees payable in connection with the transaction'' was consistent with the proposed inclusion in points and fees for qualified mortgages of ''the total points and fees * * * payable in connection with the loan'' in the Board's 2011 ATR Proposal. As discussed in the Bureau's 2013 ATR Final Rule, the Board expressed concern in the 2011 ATR Proposal that some fees that occur after closing, such as fees to modify a loan, might be deemed to be points and fees under the new framework. The Board thus requested comment in the 2011 ATR Proposal on whether other fees (*i.e.,* in addition to certain mortgage insurance premiums and charges for credit insurance and debt cancellation and suspension coverage) should be included in points and fees only if they are ''payable at or before closing.''

As discussed in greater detail in the Bureau's 2013 ATR Final Rule, both industry and consumer group commenters expressed concern (either in response to the 2011 ATR Proposal, the 2012 HOEPA Proposal, or both) that the general requirement to include in points and fees charges ''payable in connection with the transaction'' introduced uncertainty into the points and fees calculation by, for example, making it unclear whether certain charges that might not be known (or

[93] In brief, these existing provisions require the inclusion in points and fees for high-cost mortgages of all non-interest items included in the finance charge (§ 1026.32(b)(1)(i)), all compensation paid to mortgage brokers (§ 1026.32(b)(1)(i)), real estate-related charges paid to an affiliate of the creditor (§ 1026.32(b)(1)(iii)), and certain credit insurance and debt suspension and cancellation premiums (§ 1026.32(b)(1)(iv)).

[94] The Bureau adopts proposed § 1026.32(b)(3) as § 1026.32(b)(2) in this final rule.

[95] Proposed § 1026.32(b)(3) defining points and fees for HELOCs is finalized as § 1026.32(b)(2) in the 2013 HOEPA Final Rule. *See* the section-by-section analysis of § 1026.32(b)(2) below.

knowable) as of consummation would need to be included. One industry commenter thus recommended that the Bureau clarify that items included in the finance charge but paid after consummation are carved out of points and fees. One consumer group commenter suggested that the Bureau replace the ''payable in connection with the transaction'' phrasing with the general requirement to include in points and fees charges ''known at or before'' consummation or account opening. The commenter noted that the ''known at or before'' standard would (1) Clarify that charges financed through the loan amount are included in points and fees, (2) prevent creditors from evading the points and fees test by requiring consumers to pay charges after consummation, and (3) enable creditors to calculate the amount of points and fees with certainty at or before consummation.

As discussed in the 2013 ATR Final Rule, the Dodd-Frank Act provides that for the points and fees tests for both high-cost mortgages and qualified mortgages, the charges ''payable in connection with'' the transaction are included in points and fees. *See* TILA sections 103(bb)(1)(A)(ii) (high-cost mortgages) and 129C(b)(2)(A)(vii) (qualified mortgages). The Bureau appreciates, however, that creditors need certainty in calculating points and fees so they can ensure that they are not exceeding the points and fees thresholds for high-cost mortgages (or that they are not exceeding the points and fees cap for qualified mortgages). The Bureau thus interprets the ''in connection with'' requirement in TILA section 103(bb)(1)(A)(ii) for high-cost mortgages as limiting the universe of charges that need to be included in points and fees.[96] Specifically, to clarify when charges or fees are ''in connection with'' a transaction, the Bureau is specifying in § 1026.32(b)(1) in the 2013 ATR Final Rule that fees or charges are included in points and fees only if they are ''known at or before consummation.''

As discussed in detail in the 2013 ATR Final Rule, the Bureau also is adding new comment 32(b)(1)–1 to explain when fees or charges are known at or before consummation. The comment explains that charges for a subsequent loan modification generally are not included in points and fees because, at consummation, the creditor would not know whether a consumer would seek to modify the loan and therefore would not know whether charges in connection with a modification would ever be imposed.[97] Comment 32(b)(1)–1 also clarifies that the maximum prepayment penalties that may be charged or collected under the terms of a mortgage loan are known at or before consummation and are included in points and fees under § 1026.32(b)(1)(iv), even though the consumer will pay them, if ever, sometime after consummation.[98] In addition, comment 32(b)(1)–1 notes that, under § 1026.32(b)(1)(i)(C)(*1*) and (iii), certain premiums or other charges for PMI or credit insurance must be included in points and fees only if they are payable at or before consummation. Thus, even if the amounts of such premiums or other charges are known at or before consummation, they are included in points and fees only if they are payable at or before consummation.

32(b)(1)(i)

Prior to the Dodd-Frank Act, TILA section 103(aa)(4)(A) provided that points and fees includes all items included in the finance charge, except interest or the time-price differential. This provision (the finance charge prong of points and fees) is implemented in existing § 1026.32(b)(1)(i). The Dodd-Frank Act did not specifically amend TILA section 103(aa)(4)(A). Nevertheless, both the Board's 2011 ATR Proposal and the Bureau's 2012 HOEPA Proposal proposed several revisions to § 1026.32(b)(1)(i) and comment 32(b)(1)(i)–1.

First, in its 2011 ATR Proposal, the Board proposed to revise existing language in Regulation Z that requires the inclusion in points and fees of ''all items required to be disclosed under § 1026.4(a) and 1026.4(b).'' 12 CFR 1032(b)(1)(i). Because § 1026.4 does not itself require disclosure of the finance charge, the Board proposed to revise this language to read: ''all items considered to be a finance charge under § [1026.4(a)] and [1026.4(b)].'' The Board also proposed certain clarifying changes to comment 32(b)(1)(i)–1.

In addition to re-publishing the Board's proposed change to § 1026.32(b)(1)(i), proposed § 1026.32(b)(1)(i) in the Bureau's 2012 HOEPA Proposal would have amended the finance charge prong of the points and fees definition to ensure that additional charges were not included in points and fees as a result of the more inclusive definition of the finance charge proposed in the Bureau's 2012 TILA–RESPA Integration Proposal. The Bureau believed that the proposed amendment to § 1026.32(b)(1)(i) was necessary to avoid a potentially unwarranted expansion in HOEPA coverage through an increase in the finance charge.

In response both to the Board's 2011 ATR Proposal and to Bureau's 2012 HOEPA Proposal, several industry commenters expressed concern that the proposed definition of points and fees was overbroad because it included all items considered to be a finance charge. The commenters asserted that several items that are included in the finance charge under § 1026.4(b) are vague or inapplicable in the context of mortgage transactions, or that they duplicate items specifically addressed in other provisions of the points and fees test, thus making the points and fees calculation internally inconsistent. Several industry commenters also requested clarification about whether specific fees and charges are included in points and fees. For example, at least two commenters asked that the Bureau clarify whether (and if so, to what extent) interest, real estate agents' fees, settlement agent costs, hazard insurance premiums, property taxes, § 1026.4(c)(7) charges, appraisal fees, servicing fees, mortgage insurance premiums, discounts for payment other than by credit, and various optional charges, are included in points and fees. The Bureau responds to these comments below, but generally notes that the finance charge as defined in § 1026.4 continues to be the starting point for points and fees. Once a creditor has determined whether a charge would be included in points and fees as a finance charge that is known at or before consummation, then a creditor should apply the more specific points and fees provisions in § 1026.32(b)(1)(i)(A) through (F) to determine whether the charge is excluded. Likewise, even if a creditor has determined that a charge is excluded from points and fees because it is not a finance charge, the creditor must apply the more specific points and fees provisions in § 1026.32(b)(1)(ii) through (vi) to determine whether the charge nonetheless must be included in points and fees.

In response to the 2012 HOEPA Proposal, some industry commenters

[96] The Bureau is adopting the same interpretation for points and fees for qualified mortgages in the 2013 ATR Final Rule. *See* the section-by-section analysis of § 1026.32(b)(1) therein.

[97] A few industry commenters requested that the Bureau clarify that servicing charges are excluded from points and fees. The Bureau notes that the guidance in comment 32(b)(1)–1 as adopted in the 2013 ATR Final Rule applies equally to these types of charges; thus, they must be included in points and fees only if known at or before consummation.

[98] The Bureau notes that the inclusion of prepayment penalties in points and fees is an exception to the general rule that a creditor must count only those charges that the creditor knows will be imposed. This is a result of the fact that TILA expressly requires the maximum prepayment penalties that may be charged in connection with a transaction to be counted in points and fees.

also generally urged the Bureau to clarify that additional charges would not be brought into points and fees merely by operation of the Bureau's proposed more inclusive definition of the finance charge. Other commenters, particularly consumer groups, expressed dissatisfaction with the Bureau's proposed method for addressing the more inclusive finance charge in § 1026.32(b)(1)(i), generally stating that the Bureau's approach was needlessly complicated and that the Dodd-Frank Act's exclusion of bona fide third-party charges in TILA section 103(bb)(1)(A)(ii) adequately addressed any concerns about unwarranted fees being brought into the points and fees definition through the expanded finance charge.

As discussed in part III above, the Bureau will be determining whether to adopt its proposed more inclusive finance charge definition when it finalizes the 2012 TILA–RESPA Integration Proposal, rather than in January 2013. Accordingly, the Bureau neither addresses comments relating to, nor finalizes in this rulemaking, the 2012 HOEPA Proposal's amendment to the definition of points and fees for closed-end credit transactions to address the more Bureau's proposed more inclusive finance charge.

The Bureau otherwise is adopting proposed § 1026.32(b)(1)(i) in the 2013 ATR Final Rule substantially as proposed in the 2011 ATR Proposal and the 2012 HOEPA Proposal, but with certain additions and clarifications in the commentary to § 1026.32(b)(1)(i) (as well as in other parts of the points and fees calculation) to address commenters' requests for clarification about whether certain fees are included in or excluded from the calculation. These additions and clarifications also are discussed in detail in the section-by-section analysis of § 1026.32(b)(1)(i) in the Bureau's 2013 ATR Final Rule.

With respect to certain of the commenters' specific concerns about whether particular items (*e.g.,* discounts offered to induce payment for a purchase by cash and settlement agent charges), the Bureau notes that creditors should follow § 1026.4 for when such charges must be included in the finance charge. If they are not included in the finance charge, they would not be included in points and fees. Moreover, as discussed below and in new comment 32(b)(1)(i)(D)–1, certain settlement agent charges may also be excluded from points and fees as bona fide third-party charges that are not retained by the creditor, loan originator, or an affiliate of either.

32(b)(1)(i)(A)

TILA section 103(aa)(4)(A) historically has provided that points and fees includes all items included in the finance charge, except interest or the time-price differential. This provision (the finance charge prong of points and fees) is implemented in existing § 1026.32(b)(1)(i). For organizational purposes, the Board in its 2011 ATR Proposal set forth new § 226.32(b)(1)(i)(A) to implement the pre-existing exclusion of interest from points and fees. In its 2012 HOEPA Proposal, the Bureau republished the Board's proposed § 226.32(b)(1)(i)(A) without change as § 1026.32(b)(1)(i)(A). The Bureau adopts proposed § 1026.32(b)(1)(i)(A) in the 2013 ATR Final Rule, as proposed.

32(b)(1)(i)(B)

The Dodd-Frank Act did not amend TILA section 103(aa)(4)(A) concerning the inclusion in points and fees of non-interest items in the finance charge. However, the Dodd-Frank Act added several provisions to TILA that provide for the exclusion from points and fees of certain items that otherwise would be included in points and fees under the finance charge prong. One such item is premiums for government mortgage insurance.[99] Specifically, section 1431 of the Dodd-Frank Act added new TILA section 103(bb)(1)(C), which excludes all government mortgage insurance premiums from the calculation of points and fees. Because such premiums otherwise would be included in points and fees as an item included in the finance charge, the Board in its 2011 ATR Proposal proposed to implement new TILA section 103(bb)(1)(C) in new § 226.32(b)(1)(i)(B), as an exclusion from the finance charge prong of points and fees.[100]

In implementing the government mortgage insurance premium exclusion provided by new TILA section 103(bb)(1)(C), the Board proposed to exclude from points and fees not only mortgage insurance *premiums* under government programs, but also charges for mortgage *guaranties* under government programs.[101] The Board stated that it interpreted the statute to exclude such guaranties, and that its proposal was supported by its authority under TILA section 105(a) to make adjustments to facilitate compliance with and effectuate the purposes of TILA. Both the U.S. Department of Veterans Affairs (VA) and the USDA expressed concerns to the Board that, if charges for guaranties provided by those agencies and State agencies were included in points and fees, their loans might exceed high-cost mortgage thresholds and the cap for qualified mortgages, thereby disrupting these programs and jeopardizing an important source of credit for many consumers.

The Bureau's 2012 HOEPA Proposal would have implemented the exclusion from points and fees of government mortgage insurance premiums and guaranty fees as proposed by the Board in § 226.32(b)(1)(i)(B) and comment 32(b)(1)(i)–2, with only minor wording changes for consistency with Regulation Z. In excluding guaranty fees, the Bureau, like the Board in its 2011 ATR Proposal, would have exercised its authority under TILA section 105(a) to make adjustments to facilitate compliance with and effectuate the purposes of TILA. For the same reasons stated by the Board in its 2011 ATR Proposal, and as further explained in the Bureau's 2013 ATR Final Rule, the Bureau believes that exercising its authority under TILA section 105(a) to exclude government guaranty fees from points and fees is appropriate to ensure access to credit through Federal and State government programs.

The Bureau did not receive any comments in response to its 2012 HOEPA Proposal objecting to the exclusion from points and fees of government mortgage insurance premiums or guaranty fees.[102] The Bureau is adopting these exclusions in the Bureau's 2013 ATR Final Rule substantially as proposed in the 2011 ATR and 2012 HOEPA Proposals, but with clarifying revisions that are discussed in greater detail in the section-by-section analysis of § 1026.(b)(1)(i)(B) in the 2013 ATR Final Rule. For instance, the Bureau is adding an example to comment 32(b)(1)(i)(B)–1 to clarify that mortgage guaranty fees under government programs, such as VA and USDA funding fees, are excluded from points and fees.

32(b)(1)(i)(C)

As added by the Dodd-Frank Act, TILA section 103(bb)(1)(C) excludes certain PMI premiums from points and fees for high-cost mortgages and

[99] These other items are discussed in the section-by-section analysis of § 1026.32(b)(1)(i)(C) through (F) below.

[100] *See* 76 FR 27390, 27400–02, 27481, 27487–88 (May 11, 2011). The Board's proposed § 226.32(b)(1)(i)(B) also would have excluded certain PMI premiums from points and fees. Those exclusions are addressed in the section-by-section analysis of § 1026.32(b)(1)(i)(C) below.

[101] *Id.* at 27400–01.

[102] As discussed in the section-by-section analysis of § 1026.(b)(1)(i)(C), however, the Bureau received comments concerning the different treatment for points and fees of government and PMI premiums.

qualified mortgages. Specifically, TILA section 103(bb)(1)(C)(ii) provides that points and fees shall exclude any amount of PMI premiums payable at or before consummation that is not in excess of the amount payable under policies in effect at the time of origination under section 203(c)(2)(A) of the National Housing Act, provided that the premium, charge, or fee is required to be refundable on a pro-rated basis and the refund is automatically issued upon notification of the satisfaction of the underlying mortgage loan. TILA section 103(bb)(1)(C)(iii) provides for the exclusion from points and fees of any mortgage insurance premium paid by the consumer after consummation. As with government mortgage insurance premiums and guarantees, because such PMI premiums otherwise would be included in points and fees as an item included in the finance charge, the Board proposed to implement the new exclusion in § 226.32(b)(1)(i)(B) and comments 32(b)(1)(i)–3 and –4, as an exclusion from the finance charge prong of points and fees.[103]

The 2012 HOEPA Proposal's proposed § 1026.32(b)(1)(i)(B) and comments 32(b)(1)(i)–3 and –4 republished the Board's proposed provisions concerning PMI premiums with only minor changes for consistency with Regulation Z. The Bureau's 2012 HOEPA Proposal thus would have excluded from points and fees, as required by amended TILA section 103(bb)(1)(C): (1) All up-front PMI premiums, but only to the extent that such premiums did not exceed government-sponsored premiums and were refundable to the consumer on a pro rata basis, and (2) all PMI premiums payable after consummation.

Several industry commenters objected to the 2012 HOEPA Proposal's treatment of PMI premiums for closed-end points and fees. Industry commenters generally voiced the same objections to this provision that they voiced in response to the Board's 2011 ATR Proposal. Specifically, some industry commenters criticized what they viewed as different treatment of PMI and government insurance premiums and argued that PMI premiums should be excluded from points and fees altogether, even if the premiums do not satisfy the statutory standard for exclusion. These commenters stated that PMI provides substantial benefits to consumers and noted that the 2012 HOEPA Proposal was likely to incentivize creditors to originate FHA loans rather than loans requiring PMI if FHA premiums are given more favorable treatment in points and fees. One such commenter stated that driving consumers to FHA loans would be problematic because FHA's insurance book has already grown too large and is at risk of becoming actuarially unsound. Another commenter noted that comparing up-front mortgage insurance premiums for conventional loans to such premiums for FHA loans is problematic for consumers because FHA premiums are structured to have an up-front payment followed by monthly payments, whereas with PMI a consumer can elect to pay a single, up-front premium, to pay on a monthly basis, or to pay through rate. Under the proposal, the commenter argued, consumers would be less likely to be able to choose a single, up-front premium. One commenter argued that tying PMI premiums to up-front government premiums would require conventional lenders to become experts in FHA loans. Some such commenters suggested that all mortgage insurance premiums payable at or before consummation, whether government or private and regardless of amount, should be excluded from points and fees.

Other industry commenters objected to the Bureau's proposed implementation of the statutory distinction that would favor refundable PMI premiums over nonrefundable premiums. These commenters noted that nonrefundable premiums tend to be less expensive for consumers than refundable premiums.

Finally, some commenters expressed uncertainty as to the precise rule for inclusion of PMI premiums payable at or before consummation in points and fees. It was noted that proposed § 1026.32(b)(1)(i)(B)(*2),* as written, could have been interpreted to require inclusion of the entire PMI premium if it exceeded the FHA insurance premium, rather than merely the inclusion of the portion of the premium in excess of the FHA premium. A few commenters also expressed uncertainty about how to complete the FHA premium comparison when originating conventional loans, particularly loans that would not qualify for FHA insurance (*e.g.,* because their principal balance is too high).

These comments on the Bureau's 2012 HOEPA Proposal generally were consistent with concerns raised in response to the Board's 2011 ATR Proposal. Thus, commenters' concerns primarily are addressed in the section-by-section analysis of § 1026.32(b)(1)(i)(C) in the 2013 ATR Final Rule. As discussed in greater detail therein, the Bureau is finalizing proposed § 1026.32(b)(1)(i)(B) concerning PMI premiums in the 2013 ATR Final Rule substantially as proposed in the 2011 ATR and 2012 HOEPA Proposals. However, the Bureau finalizes the provision in § 1026.32(b)(1)(i)(C) and divides it into two parts. The first part, § 1026.32(b)(1)(i)(C)(*1*), addresses PMI premiums payable at or before consummation. The second part, § 1026.32(b)(1)(i)(C)(*2*), addresses PMI premiums payable after consummation.

As noted in the 2013 ATR Final Rule, with respect to the comments requesting that all PMI premiums be excluded from points and fees, the Bureau notes that Congress enacted TILA section 103(bb)(1)(C), which created different treatment of government and PMI premiums and prescribed specific and detailed conditions for excluding PMI premiums (*i.e.,* based on the amount of the premium and whether it is refundable). The Bureau does not believe it would be appropriate to exercise its exception authority to reverse Congress's decision.

The Bureau acknowledges, however, that there is a need for clarification as to what portion of any PMI premium payable at or before consummation must be included in points and fees. Thus, as discussed more fully in the 2013 ATR Final Rule, the Bureau adopts in that rulemaking clarifying changes that, among other things, specify that only the portion of a PMI premium payable at or before consummation that exceeds the government premium is included in points and fees. The Bureau also adopts clarifying changes that specify that creditors originating conventional loans—even such loans that are not eligible to be FHA loans (*i.e.,* because their principal balance is too high)—should look to the permissible up-front premium amount for FHA loans, as implemented by applicable regulations and other written authorities issued by the FHA (such as Mortgagee Letters). For example, pursuant to HUD's Mortgagee Letter 12–4 (published March 6, 2012), the allowable up-front FHA premium for single-family homes is 1.75 percent of the base loan amount.[104] Finally, the Bureau clarifies that only the portion of the single or up-front PMI premium in excess of the allowable FHA premium (*i.e.,* rather than any monthly premium or portion thereof) must be included in points and fees.

32(b)(1)(i)(D)

TILA section 103(bb)(1)(A)(ii) excludes from points and fees for

[103] *See* 76 FR 27390, 27401–02 (May 11, 2011).

[104] *See* Department of Housing and Urban Development, Mortgagee Letter 12–4 (Mar. 6, 2012), available at *http://portal.hud.gov/hudportal/documents/huddoc?id=12-04ml.pdf.*

purposes of determining whether a transaction is a high-cost mortgage bona fide third-party charges not retained by the creditor, loan originator, or an affiliate of either. This bona fide third-party charge exclusion from points and fees for high-cost mortgages is identical to the exclusion of such charges from points and fees for qualified mortgages under TILA section 129C(b)(2)(C), which the Board proposed to implement in its 2011 ATR Proposal in § 226.43(e)(3)(ii)(A).[105] Such a bona fide third-party charge would include, for example, a counseling fee paid by the consumer to a HUD-certified homeownership counseling organization to receive the counseling required for high-cost mortgages under § 1026.34(a)(5).[106] For consistency and to ease compliance, the Bureau proposed in its 2012 HOEPA Proposal to implement the bona fide third-party charge exclusion for high-cost mortgages in proposed § 1026.32(b)(5)(i) in a manner that mirrored in all significant respects the Board's proposed § 226.43(e)(3)(ii)(A) concerning such charges.[107]

Specifically, proposed § 1026.32(b)(5)(i) in the 2012 HOEPA Proposal would have excluded from the points and fees calculation for high-cost mortgages any bona fide third-party charge not retained by the creditor, loan originator, or an affiliate of either, unless the charge was a PMI premium that was required to be included in closed-end points and fees under proposed § 1026.32(b)(1)(i)(B). As just discussed in the section-by-section analysis of § 1026.32(b)(1)(i)(C), the Dodd-Frank Act amended TILA to add section 103(bb)(1)(C)(ii), which excludes only certain PMI premiums from the points and fees calculation for high-cost mortgages. Thus, the Bureau would have implemented TILA's general exclusion of bona fide third-party charges from the points and fees calculation for high-cost mortgages in proposed § 1026.32(b)(5)(i) with the caveat that certain PMI premiums must be included in points and fees for closed-end credit transactions as set forth in proposed § 1026.32(b)(1)(i)(B).[108] In other words, where one portion of the statutory points and fees provision would exclude the charge (the general provision) and another would include it (the specific provision), the Bureau interpreted TILA to require the charge to be included in the calculation.

Proposed comment 32(b)(5)(i)–1 would have clarified that § 1026.36(a)(1) and comment 36(a)–1 provide additional guidance concerning the meaning of the term ''loan originator'' for purposes of § 1026.32(b)(5)(i). Proposed comment 32(b)(5)(i)–2 would have provided an example for purposes of determining whether a charge may be excluded from points and fees as a bona fide third-party charge. Proposed comment 32(b)(5)(i)–3 addressing PMI premiums mirrored proposed comment 43(e)(3)(ii)–2 in the Board's 2011 ATR Proposal, except that proposed comment 32(b)(5)(i)–3 would have provided that it applies for purposes of determining whether a mortgage is a high-cost mortgage, rather than a qualified mortgage. Proposed comment 32(b)(5)(i)–3 also would have specified that the comment applies to closed-end transactions.

The Bureau received two main categories of comments concerning proposed § 1026.32(b)(5)(i). First, several industry commenters stated that Congress intended the ''bona fide third-party charge'' exclusion to establish a ''bona fide'' standard, rather than a ''reasonable'' standard, for the exclusion of all third-party charges from points and fees for high-cost mortgages (and qualified mortgages). These comments are addressed below in the section-by-section analysis of § 1026.32(b)(1)(iii), which deals with the inclusion in points and fees of certain real estate-related charges paid to the creditor or an affiliate of the creditor.[109]

Second, GSE commenters argued, as they did in comments submitted in response to the Board's 2011 ATR Proposal, that loan-level price adjustments (LLPAs) should be excluded from points and fees for high-cost mortgages as bona fide third-party charges. LLPAs are made by Fannie Mae and Freddie Mac when purchasing loans to offset perceived risks, such as a high loan-to-value ratio (LTV) or low credit score, among many other risk factors. The Board's 2011 ATR Proposal solicited comment on whether such charges, including charges in connection with similar risk-based price adjustments for mortgages held in portfolio, should be excluded from points and fees for qualified mortgages. As discussed in detail in the 2013 ATR Final Rule, creditors may, but are not required to, increase the interest rate charged to the consumer so as to offset the impact of the LLPAs or increase the costs to the consumer in the form of points to offset the lost revenue resulting from the LLPAs. GSE commenters thus argued that these points should not be counted in points and fees for high-cost mortgages (or for qualified mortgages) under the exclusion for ''bona fide third party charges not retained by the loan originator, creditor, or an affiliate of either'' in TILA section 103(bb)(1)(A)(ii) (or TILA section 129C(b)(2)(C)(i) for qualified mortgages). The GSE commenters noted that LLPAs did not exist when § 1026.32 was originally adopted, so there has been no guidance on whether such charges should be included in, or excluded from, points and fees. The commenters stated that the lack of guidance is now an issue because of the revised points and fees definition and lower threshold for points and fees for high-cost mortgages following the Dodd-Frank Act.

The GSE commenters, as well as certain industry commenters, worried that, without an exclusion for LLPAs, points and fees would quickly be consumed by these fees and loan originator compensation, such that loans could have trouble staying under the general 5 percent high-cost mortgage points and fees threshold. The GSE commenters stated that LLPAs meet the definition of a bona fide third-party charge as that term was proposed in the 2011 ATR and 2012 HOEPA Proposals, because the creditor does not retain the charge. In addition, LLPAs are set fees that are transparent and accessible via the GSEs' Web sites, so there is little risk of abuse. The commenters acknowledged that some creditors charge similar risk-based price adjustments to consumers even when holding loans in portfolio, but they argued that such risk-based price adjustments also could be excluded from points and fees if they were made publicly available, as the GSE's charges are, or disclosed to consumers as a third-party fee on the Bureau's proposed TILA–RESPA integrated disclosure form. Certain industry comments suggested that the Bureau clarify that LLPAs may be excluded from points and fees as bona fide discount points. Consumer groups did not comment on this issue.

[105] *See* 76 FR 27390, 27465 (May 11, 2011).

[106] This was noted in § 1026.34(a)(5)(v) and comment 34(a)(5)(v)-1 of the 2012 HOEPA Proposal.

[107] Proposed § 1026.32(b)(5)(i) in the 2012 HOEPA Proposal would have differed from the proposed § 226.43(e)(3)(ii)(A) in the Board's 2011 ATR Proposal in one minor respect to address the application of HOEPA and, in turn, the bona fide third-party charge exclusion, to HELOCs. *See* the section-by-section analysis of § 1026.32(b)(2)(i)(D) below.

[108] *See id.* (proposing the same caveat to the bona fide third-party charge exclusion for qualified mortgages).

[109] This issue is also addressed in the section-by-section analysis of § 1026.32(b)(1)(iii) in the 2013 ATR Final Rule.

To ensure a streamlined definition of points and fees in the high-cost mortgage and qualified mortgage contexts, the Bureau is adopting proposed § 226.43(e)(3)(ii)(A) (from the 2011 ATR Proposal) and proposed § 1026.32(b)(5)(i) as applied to closed-end credit transactions (from the 2012 HOEPA Proposal) in § 1026.32(b)(1)(i)(D) in the 2013 ATR Final Rule.[110] The Bureau believes that this placement is sensible in the context of both rulemakings given that the items excluded through the bona fide third-party charge exclusion would be counted in points and fees, if at all, as a finance charge.

Section 1026.32(b)(1)(i)(D) as adopted in the 2013 ATR Final Rule retains the proposed caveat that the exclusion of bona fide third-party charges from points and fees is subject to the limitation that certain amounts of PMI premiums must sometimes be included in the calculation pursuant to § 1026.32(b)(1)(i)(C). In addition, the 2013 ATR Final Rule adopts § 1026.32(b)(1)(i)(D) with two new comments reflecting that the exclusion for bona fide third-party charges also is subject to the more specific points and fees provisions in § 1026.32(b)(1)(iii) and (iv). As adopted in the 2013 ATR Final Rule, § 1026.32(b)(1)(i)(D) thus provides that a bona fide third-party charge not retained by the creditor, loan originator, or an affiliate of either is excluded from points and fees unless the charge is required to be included under § 1026.32(b)(1)(i)(C) (PMI premiums), (iii) (certain real estate-related fees), or (iv) (credit insurance premiums). The final rule thus adheres to the approach that the specific statutory provisions regarding PMI (TILA section 103(bb)(1)(C)), certain real estate-related fees (TILA section 103(bb)(4)(C)), and credit insurance premiums (TILA section 103(bb)(4)(D)) should govern whether these charges are included in points and fees, rather than the more general provisions regarding the exclusion of bona fide third-party charges in TILA sections 103(bb)(1)(A)(ii) and 129C(b)(2)(C) for high-cost mortgages and qualified mortgages, respectively.

As discussed in detail in the 2013 ATR Final Rule, the Bureau acknowledges that TILA sections 103(bb)(1)(A)(ii) and 129C(b)(2)(C) concerning bona fide third-party charges could be read to provide for a two-step calculation of points and fees. First, the creditor would calculate points and fees as defined in TILA section 103(bb)(4). Second, the creditor would exclude all bona fide third-party charges not retained by the mortgage originator, creditor, or an affiliate of either, as provided in TILA sections 103(bb)(1)(A)(ii) and 129C(b)(2)(C). Under this reading, certain charges—such as for private mortgage insurance premiums—could initially, in step one, be included in points and fees. In step two, these charges would be excluded if they were bona fide third-party charges.

However, to give meaning to the specific statutory provisions regarding mortgage insurance, real estate related fees, and credit insurance, the Bureau believes that the better reading is that these specific provisions should govern whether such charges are included in points and fees, rather than the general provisions excluding certain bona fide third-party charges. In support of this approach, the Bureau also invokes its authority under TILA section 105(a) to make such adjustments and exceptions as are necessary and proper to effectuate the purposes of TILA. The Bureau believes that Congress included specific provisions regarding these types of fees in part to deter the imposition of excessive fees. Allowing exclusion of these fees and charges if they are ''bona fide''—without meeting any of the other conditions specified by Congress—would undermine this purpose. Additionally, it would in effect nullify the specific conditions Congress set forth for exclusion from the points and fees calculation.

As noted above, GSE commenters argued that points charged by creditors to offset LLPAs should be excluded from points and fees as bona fide third-party charges. In setting the purchase price for loans, the GSEs impose LLPAs to offset certain credit risks, and creditors may—but are not required to—recoup the revenue lost as a result of the LLPAs by increasing the costs to consumers in the form of points. As noted in the 2013 ATR Final Rule, the Bureau believes that the manner in which creditors respond to LLPAs is better viewed as a fundamental component of how the pricing of a mortgage loan is determined, rather than as a third-party charge. As the Board noted in its 2011 ATR Proposal, allowing creditors to exclude points charged to offset LLPAs could create market imbalances between loans sold on the secondary market and loans held in portfolio. While such imbalances could be addressed by excluding risk adjustment fees more broadly, including such fees charged by creditors for loans held in portfolio, the Bureau agrees with the Board that this could create compliance and enforcement difficulties. Thus, the Bureau concludes that, if points are charged to offset LLPAs, those points may not be excluded from points and fees as bona fide third-party charges. However, to the extent that creditors offer consumers the opportunity to pay points to lower the interest rate that the creditor would otherwise charge to recover the lost revenue from the LLPAs, such points may be excluded from points and fees as bona fide discount points if they satisfy the requirements of § 1026.32(b)(1)(i)(E) or (F).

In light of the foregoing considerations, the Bureau is finalizing the exclusion of bona fide third-party charges from closed-end points and fees in § 1026.32(b)(1)(i)(D) in the 2013 ATR Final Rule, with comments 32(b)(1)(i)(D)–1 through –4 providing further guidance concerning the interaction of the bona fide third-party charge exclusion with other points and fees provisions. *See* comments 32(b)(1)(i)(D)–1 (third-party settlement agent charges), –2 (PMI premiums), –3 (real estate-related charges), and –4 (credit insurance premiums).

32(b)(1)(i)(E)

Exclusion of Up to Two Bona Fide Discount Points

Section 1431(d) of the Dodd-Frank Act added new section 103(dd)(1) to TILA, which permits a creditor to exclude from points and fees for high-cost mortgages up to and including two bona fide discount points payable by the consumer in connection with the mortgage, but only if the interest rate from which the mortgage's interest rate will be discounted does not exceed by more than one percentage point (1) the average prime offer rate or (2) for loans secured by personal property, the average rate on a loan for which insurance is provided under Title I of the National Housing Act.[111] New TILA section 103(dd)(1) for high-cost mortgages is substantially similar to new TILA section 129C(b)(2)(C)(ii)(I). TILA section 129C(b)(2)(C)(ii)(I) provides for the exclusion of up to and including two bona fide discount points from points and fees for qualified mortgages, but only if the interest rate for the transaction before the discount does not exceed by more than one percentage point the average prime offer rate.[112] The only difference between

[110] The exclusion of bona fide third-party charges from points and fees for HELOCs, which also was proposed in § 1026.32(b)(5)(i) in the 2012 HOEPA Proposal, is finalized in § 1026.32(b)(2)(1)(D), as discussed below.

[111] *See* TILA section 103(dd)(1)(A) (average prime offer rate) and (B) (average rate on loans insured under Title I).

[112] *See* 76 FR 27390, 27465–67, 27485, 27504 (May 11, 2011).

new TILA section 103(dd)(1) (high-cost mortgages) and new TILA section 129C(b)(2)(C)(ii)(I) (qualified mortgages) is that the high-cost mortgage provision provides for a special calculation to determine whether discount points may be excluded from points and fees for loans secured by personal property.

In the 2012 HOEPA Proposal, the Bureau proposed to implement the exclusion of up to two bona fide discount points from points and fees for high-cost mortgages in proposed § 1026.32(b)(5)(ii)(A)(*1*) (loans secured by real property) and (*2*) (loans secured by personal property).[113] The proposed provision generally would have been consistent with proposed § 226.43(e)(3)(ii)(B) in the Board's 2011 ATR Proposal, which would have implemented new TILA section 129C(b)(2)(C)(ii)(I) for qualified mortgages. Specifically, proposed § 1026.32(b)(5)(ii)(A)(*1*) would have permitted a creditor to exclude from points and fees for high-cost mortgages up to two bona fide discount points payable by the consumer, provided that the interest rate for the closed- or open-end credit transaction without such discount points would not exceed by more than one percentage point the average prime offer rate as defined in § 1026.35(a)(2). Proposed § 1026.32(b)(5)(ii)(A)(*2*) would have implemented the special calculation for determining whether up to two discount points could be excluded from the high-cost mortgage points and fees calculation for transactions secured by personal property. Thus, under proposed § 1026.32(b)(5)(ii)(A)(*2*) a creditor extending credit secured by personal property could exclude from points and fees up to two bona fide discount points payable by the consumer, provided that the interest rate for the closed- or open-end credit transaction without such discount points would not exceed by more than one percentage point the average rate on loans insured under Title I of the National Housing Act (12 U.S.C. 1702 *et seq.*).

Proposed comment 32(b)(5)(ii)–1 would have clarified how to determine, for purposes of the bona fide discount point exclusion in proposed § 1026.32(b)(5)(ii)(A)(*1*) and (B)(*1*), whether a transaction's interest rate met the requirement not to exceed the average prime offer rate by more than one or two percentage points, respectively. Specifically, proposed comment 32(b)(5)(ii)–1 would have provided that the average prime offer rate for proposed § 1026.32(b)(5)(ii)(A)(*1*) and (B)(*1*) is the average prime offer rate that applies to a comparable transaction as of the date the interest rate for the transaction is set. Proposed comment 32(b)(5)(ii)–1 would have cross-referenced proposed comments 32(a)(1)(i)–1 and –2 for closed- and open-end credit transactions, respectively, for guidance as to determining the applicable average prime offer rate. Proposed comment 32(b)(5)(ii)–1 also would have cross-referenced proposed comments 43(e)(3)(ii)–3 and –4 for examples of how to calculate bona fide discount points for closed-end credit transactions secured by real property.

The Bureau received several comments concerning the exclusion of discount points from points and fees for high-cost mortgages. The comments, which were from industry, generally requested that the Bureau use its authority to eliminate or loosen the requirement that the interest rate prior to the discount not exceed the average prime offer rate by the statutorily-prescribed amount. The commenters stated that the starting interest rate requirement is too restrictive and will mean that, in many cases, creditors will not be able to deduct any discount points from points and fees. Thus, for example, one commenter suggested that one percentage point be added to the margin above the average prime offer rate for jumbo loans and loans on second homes, which tend to have higher interest rates. A few industry commenters also requested that the Bureau clarify that discount points that meet the criteria are excluded from points and fees regardless of who pays them (*i.e.,* the consumer, the seller, or another person, such as the consumer's employer).[114] The Bureau did not receive any comments specifically on proposed comment 32(b)(5)(ii)–1; however, one industry commenter requested that the Bureau clarify whether the examples in proposed comments 43(e)(3)(ii)–3 and –4 in the 2011 ATR Proposal for performing the discount point calculation apply in the high-cost mortgage context.

As noted in the 2013 ATR Final Rule, which received similar comments concerning the exclusion of bona fide discount points from the points and fees calculation for qualified mortgages, the starting interest rate limitations are prescribed in the statute. The Bureau recognizes that these limitations may circumscribe the ability of consumers to purchase more discount points to lower their interest rates. Nevertheless, Congress apparently concluded that there was a greater probability of consumer injury when consumers purchased more than two discount points or when consumers use discount points to buy down interest rates that exceed the average prime offer rate by more than two percentage points. In the absence of data or specific information suggesting a contrary conclusion, the Bureau declines to use its authority to adjust the statutory requirement.

As to comments seeking guidance that discount points may be excluded if not directly paid by the consumer, the Bureau notes that creditors should continue to apply the basic rules of Regulation Z concerning whether points are included in the finance charge and, in turn, whether they are included in points and fees. For example, because seller's points are excluded from the finance charge under existing § 1026.4(c)(5), they are not included in points and fees, regardless of whether they meet the bona fide discount point test for exclusion.

In light of the foregoing considerations, the Bureau adopts in the 2013 ATR Final Rule the exclusion from points and fees of up to two bona fide discount points substantially as proposed in the 2011 ATR and 2012 HOEPA Proposals (for qualified mortgages and high-cost mortgages, respectively). However, to ensure a streamlined definition of points and fees in the high-cost mortgage and qualified mortgage contexts, the Bureau is finalizing proposed § 226.43(e)(3)(ii)(B) (from the 2011 ATR Proposal) and proposed § 1026.32(b)(5)(ii)(A)(*1*) and (*2*) as applied to closed-end credit transactions (from the 2012 HOEPA Proposal) in § 1026.32(b)(1)(i)(E) in the 2013 ATR Final Rule. Section 1026.32(b)(1)(i)(E)(*1*) sets forth the general rule, and § 1026.32(b)(1)(i)(E)(*2*) sets forth the special rule under HOEPA for personal property-secured loans. The Bureau believes that this placement is sensible in the context of both rulemakings given that the points excluded through the bona fide discount point exclusion would be counted in points and fees, if at all, through the finance charge prong.

The 2013 ATR Final Rule finalizes proposed comment 32(b)(5)(ii)–1 from the 2012 HOEPA Proposal as comment 32(b)(1)(i)(E)–2, with certain non-substantive changes. The 2013 ATR Final Rule also adopts as comment

[113] In its 2012 HOEPA Proposal, the Bureau proposed to implement the exclusion of up to one bona fide discount point from the points and fees calculation for high-cost mortgages in § 1026.32(b)(5)(ii)(B)(*1*) and (*2*). *See* the section-by-section analysis of § 1026.32(b)(1)(i)(F) below.

[114] The Bureau also received comment on its proposed definition of the phrase ''bona fide.'' Those comments are addressed in the section-by-section analysis of § 1026.32(b)(3) below.

32(b)(1)(i)(E)–1 a cross-reference to § 1026.32(b)(3) for the definition of ''bona fide discount point,'' and as comment 32(b)(1)(i)(E)–3 examples of how to calculate the exclusion of up to two bona fide discount points from points and fees. These comments are discussed in further detail in the section-by-section analysis of § 1026.32(b)(1)(i)(E) in the 2013 ATR Final Rule. The Bureau notes that finalizing the bona fide discount point exclusion for both qualified mortgages and high-cost mortgages in § 1026.32(b)(1) should streamline compliance and alleviate any concern that the rules would be applied differently in the high-cost and qualified mortgage contexts.

32(b)(1)(i)(F)

Exclusion of Up to One Bona Fide Discount Point

Section 1431(d) of the Dodd-Frank Act added new section 103(dd)(2) to TILA, which permits a creditor to exclude from points and fees for high-cost mortgages up to and including one bona fide discount point payable by the consumer in connection with the mortgage, but only if the interest rate from which the mortgage's interest rate will be discounted does not exceed by more than two percentage points (1) the average prime offer rate or (2) for loans secured by personal property, the average rate on a loan for which insurance is provided under Title I of the National Housing Act.[115] New TILA section 103(dd)(2) for high-cost mortgages is substantially similar to new TILA section 129C(b)(2)(C)(ii)(II) for qualified mortgages. TILA section 129C(b)(2)(C)(ii)(II) provides for the exclusion of up to and including one bona fide discount point from points and fees for qualified mortgages, but only if the interest rate for the transaction before the discount does not exceed the average prime offer rate by more than two percentage points.[116] The only difference between new TILA section 103(dd)(2) for high-cost mortgages and new TILA section 129C(b)(2)(C)(ii)(II) for qualified mortgages is that the high-cost mortgage provision provides for a special calculation to determine whether discount points may be excluded from points and fees for loans secured by personal property.

In the 2012 HOEPA Proposal, the Bureau proposed to implement the exclusion of up to one bona fide discount point from points and fees for high-cost mortgages in § 1026.32(b)(5)(ii)(B)(*1*) (loans secured by real property) and (*2*) (loans secured by personal property). The proposed provision generally would have been consistent with proposed § 226.43(e)(3)(ii)(C) in the Board's 2011 ATR Proposal, which would have implemented new TILA section 129C(b)(2)(C)(ii)(II) for qualified mortgages.[117] Specifically, proposed § 1026.32(b)(5)(ii)(B)(*1*) would have permitted a creditor to exclude from points and fees for high-cost mortgages up to one bona fide discount point payable by the consumer, provided that the interest rate for the closed- or open-end credit transaction without such discount point would not exceed by more than two percentage points the average prime offer rate, as defined in § 1026.35(a)(2). Proposed § 1026.32(b)(5)(ii)(B)(*2*) would have implemented the special calculation for determining whether up to one discount point could be excluded from points and fees for high-cost mortgages for transactions secured by personal property.

The Bureau did not receive any comments on proposed § 1026.32(b)(5)(ii)(B)(*1*) and (*2*) other than those addressed in the section-by-section analysis of § 1026.32(b)(1)(i)(E) above, concerning the exclusion of up to two bona fide discount points from points and fees. As with that exclusion, and to ensure a streamlined definition of points and fees in the high-cost mortgage and qualified mortgage contexts, the Bureau is finalizing in the 2013 ATR Final Rule proposed § 226.43(e)(3)(ii)(C) (from the 2011 ATR Proposal) and proposed § 1026.32(b)(5)(ii)(B) as applied to closed-end credit transactions (from the 2012 HOEPA Proposal) in § 1026.32(b)(1)(i)(F). Section 1026.32(b)(1)(i)(F)(*1*) sets forth the general rule, and § 1026.32(b)(1)(i)(F)(*2*) sets forth the special rule under HOEPA for personal property-secured loans.

The 2013 ATR Final Rule also adopts in comment 32(b)(1)(i)(F)–1 a cross-reference to comments 32(b)(1)(i)(E)–1 and –2 for the definition of ''bona fide discount point'' and ''average prime offer rate,'' respectively, and in comment 32(b)(1)(i)(F)–3 an example of how to calculate the exclusion of up to one bona fide discount point from closed-end points and fees. These comments are discussed in further detail in the section-by-section analysis of § 1026.32(b)(1)(i)(F) in the 2013 ATR Final Rule.

32(b)(1)(ii)

When HOEPA was enacted in 1994, it required that ''all compensation paid to mortgage brokers'' be counted toward the threshold for points and fees that triggers special consumer protections under the statute. Specifically, TILA section 103(aa)(4) provided that charges are included in points and fees only if they are payable at or before consummation and did not expressly address whether ''backend'' payments from creditors to mortgage brokers funded out of the interest rate (commonly referred to as yield spread premiums) are included in points and fees.[118] This requirement is implemented in existing § 1026.32(b)(1)(ii), which requires that all compensation paid by consumers directly to mortgage brokers be included in points and fees, but does not address compensation paid by creditors to mortgage brokers or compensation paid by any company to individual employees (such as loan officers who are employed by a creditor or mortgage broker).

The Dodd-Frank Act substantially expanded the scope of compensation included in points and fees for both the high-cost mortgage threshold in HOEPA and the qualified mortgage points and fees limits. Section 1431 of the Dodd-Frank Act amended TILA to require that ''all compensation paid *directly or indirectly* by a consumer *or creditor* to a mortgage originator from any source, including a mortgage originator that is also the creditor in a table-funded transaction,'' be included in points and fees. TILA section 103(bb)(4)(B) (emphasis added). Under amended TILA section 103(bb)(4)(B), compensation paid to anyone that qualifies as a ''mortgage originator'' is to be included in points and fees.[119] Thus,

[115] *See* TILA section 103(dd)(2)(A) (average prime offer rate) and (B) (average rate on loans insured under Title I).

[116] *See* 76 FR 27390, 27465–67, 27485, 27504 (May 11, 2011).

[117] *See id.*

[118] Some commenters use the term ''yield spread premium'' to refer to any payment from a creditor to a mortgage broker that is funded by increasing the interest rate that would otherwise be charged to the consumer in the absence of that payment. These commenters generally assume that any payment to the brokerage firm by the creditor is funded out of the interest rate, reasoning that had the consumer paid the brokerage firm directly, the creditor would have had lower expenses and would have been able to charge a lower rate. Other commenters use the term ''yield spread premium'' more narrowly to refer only to a payment from a creditor to a mortgage broker that is based on the interest rate, *i.e.,* the mortgage broker receives a larger payment if the consumer agrees to a higher interest rate. To avoid confusion, the Bureau is limiting its use of the term and is instead more specifically describing the payment at issue.

[119] ''Mortgage originator'' is generally defined to include ''any person who, for direct or indirect compensation or gain, or in the expectation of

in addition to compensation paid to mortgage brokerage firms and individual brokers, points and fees also includes compensation paid to other mortgage originators, including employees of a creditor (i.e., loan officers). In addition, as noted above, the Dodd-Frank Act removed the phrase ''payable at or before closing'' from the high-cost mortgage points and fees test and did not apply the ''payable at or before closing'' limitation to the points and fees cap for qualified mortgages. *See* TILA sections 103(bb)(1)(A)(ii) and 129C(b)(2)(A)(vii), (b)(2)(C). Thus, the statute appears to contemplate that even compensation paid to mortgage brokers and other loan originators after consummation should be counted toward the points and fees thresholds.

This change is one of several provisions in the Dodd-Frank Act that focus on loan originator compensation and regulation, in apparent response to concerns that industry compensation practices contributed to the mortgage market crisis by creating strong incentives for brokers and retail loan officers to steer consumers into higher-priced loans. Specifically, loan originators were often paid a commission by creditors that increased with the interest rate on a transaction. These commissions were funded by creditors through the increased revenue received by the creditor as a result of the higher rate paid by the consumer and were closely tied to the price the creditor expected to receive for the loan on the secondary market as a result of that higher rate.[120] In addition, many mortgage brokers charged consumers up-front fees to cover some of their costs at the same time that they accepted backend payments from creditors out of the rate. This may have contributed to consumer confusion about where the brokers' loyalties lay.

The Dodd-Frank Act took a number of steps to address loan originator compensation issues, including: (1) Adopting requirements that loan originators be ''qualified'' as defined by Bureau regulations; (2) generally prohibiting compensation based on rate and other terms (except for loan amount) and prohibiting a loan originator from receiving compensation from both consumers *and* other parties in a single transaction; (3) requiring the promulgation of additional rules to prohibit steering consumers to less advantageous transactions; (4) requiring the disclosure of loan originator compensation; and (5) restricting loan originator compensation under HOEPA and the qualified mortgage provisions by including such compensation within the points and fees calculations. *See* TILA sections 103(bb)(4)(A)(ii), (B); 128(a)(18); 129B(b), (c); 129C(b)(2)(A)(vii), (C)(i).

The Board's 2011 ATR Proposal proposed revisions to § 226.32(b)(1)(ii) to implement the inclusion of more forms of loan originator compensation into the points and fees thresholds. Those proposed revisions tracked the statutory language, with two exceptions. First, the Board's proposed § 226.32(b)(1)(ii) did not include the phrase ''from any source.'' The Board noted that the statute covers compensation paid ''directly or indirectly'' to the loan originator, and concluded that it would be redundant to cover compensation ''from any source.'' Second, for consistency with Regulation Z, the proposal used the term ''loan originator'' as defined in § 226.36(a)(1), rather than the term ''mortgage originator'' that appears in section 1401 of the Dodd-Frank Act. *See* TILA section 103(cc)(2). The Board explained that it interpreted the definitions of mortgage originator under the statute and loan originator under existing Regulation Z to be generally consistent, with one exception that the Board concluded was not relevant for purposes of the points and fees thresholds. Specifically, the statutory definition refers to ''any person who represents to the public, through advertising or other means of communicating or providing information (including the use of business cards, stationery, brochures, signs, rate lists, or other promotional items), that such person can or will provide'' the services listed in the definition (such as offering or negotiating loan terms), while the existing Regulation Z definition does not include persons solely on this basis. The Board concluded that it was not necessary to add this element of the definition to implement the points and fees calculations anyway, reasoning that the calculation of points and fees is concerned only with loan originators that receive compensation for performing defined origination functions in connection with a consummated loan. The Board noted that a person who merely represents to the public that such person can offer or negotiate mortgage terms for a consumer has not yet received compensation for that function, so there is no compensation to include in the calculation of points and fees for a particular transaction.

In the proposed commentary, the Board explained what compensation would and would not have been included in points and fees under proposed § 226.32(b)(1)(ii). The Board proposed to revise existing comment 32(b)(1)(ii)–1 to clarify that compensation paid by either a consumer or a creditor to a loan originator, as defined in § 1026.36(a)(1), would be included in points and fees. Proposed comment 32(b)(1)(ii)–1 also stated that loan originator compensation already included in points and fees because it is included in the finance charge under § 226.32(b)(1)(i) would not be counted again under § 226.32(b)(1)(ii).

Proposed comment 32(b)(1)(ii)–2.i stated that, in determining points and fees, loan originator compensation includes the dollar value of compensation paid to a loan originator for a specific transaction, such as a bonus, commission, yield spread premium, award of merchandise, services, trips, or similar prizes, or hourly pay for the actual number of hours worked on a particular transaction. Proposed comment 32(b)(1)(ii)–2.ii clarified that loan originator compensation excludes compensation that cannot be attributed to a transaction at the time of origination, including, for example, the base salary of a loan originator that is also the employee of the creditor, or compensation based on the performance of the loan originator's loans or on the overall quality of a loan originator's loan files. Proposed comment 32(b)(1)(ii)–2.i also explained that compensation paid to a loan originator for a covered transaction must be included in the points and fees calculation for that transaction whenever paid, whether at or before closing or any time after closing, as long as the compensation amount can be determined at the time of closing. In addition, proposed comment 32(b)(1)(ii)–2.i provided three examples of compensation paid to a loan originator that would have been included in the points and fees calculation.

Proposed comment 32(b)(1)(ii)–3 stated that loan originator compensation

direct or indirect compensation or gain—(i) takes a residential mortgage loan application; (ii) assists a consumer in obtaining or applying to obtain a residential mortgage loan; or (iii) offers or negotiates terms of a residential mortgage loan.'' TILA section 103(dd)(2). The statute excludes certain persons from the definition, including a person who performs purely administrative or clerical tasks; an employee of a retailer of manufactured homes who does not take a residential mortgage application or offer or negotiate terms of a residential mortgage loan; and, subject to certain conditions, real estate brokers, sellers who finance three or fewer properties in a 12-month period, and servicers. TILA section 103(dd)(2)(C) through (F).

[120] For more detailed discussions, see the Bureau's 2012 Loan Originator Proposal and the final rule issued by the Board in 2010. 77 FR 55272, 55276, 55290 (Sept. 7, 2012); 75 FR 58509, 5815–16, 58519–20 (Sept. 24, 2010) (2010 Loan Originator Final Rule).

includes amounts the loan originator retains and is not dependent on the label or name of any fee imposed in connection with the transaction. Proposed comment 32(b)(1)(ii)–3 offered an example of a loan originator imposing and retaining a ''processing fee'' and stated that such a fee is loan originator compensation, regardless of whether the loan originator expends the fee to process the consumer's application or uses it for other expenses, such as overhead.

The Bureau's 2012 HOEPA Proposal largely republished the proposed revisions and additions to proposed § 1026.32(b)(1)(ii) and related commentary in contained in the Board's 2011 ATR Proposal, with only non-substantive edits that, for example, clarified that the provisions would have applied to any closed-end credit transactions subject to § 1026.32.

The Bureau received a large number of comments on proposed § 1026.32(b)(1)(ii) and its related commentary in response to the 2012 HOEPA Proposal. Most of the comments came from industry groups or individual institutions. As with other aspects of the definition of points and fees, industry commenters' concerns regarding this provision were similar to those that were raised in response to the Board's 2011 ATR Proposal, which are addressed in detail in the preamble of the Bureau's 2013 ATR Final Rule. Industry commenters objected to the proposed inclusion of loan originator compensation in the points and fees calculation for high-cost mortgages for the following main reasons.

Many industry commenters objected to the general requirement to include loan originator compensation in points and fees. Some of these commenters suggested that the Bureau should use its exception authority to exclude loan originator compensation from the calculation. Several commenters argued that consumers are already protected from harmful compensation practices by other Dodd-Frank Act rules, such as those proposed to be implemented in the Bureau's 2012 Loan Originator Proposal. Some such commenters asserted that the HOEPA proposal, by requiring permissible compensation to be counted toward HOEPA points and fees coverage, would undercut the value derived from the payments deemed proper under the Bureau's other rules. In addition, the commenters argued, including loan originator compensation in points and fees would constrain credit and harm consumers by, for example, increasing the number of loans that might exceed the HOEPA points and fees threshold.

A number of industry commenters asserted, in particular, that loan originator compensation paid to individual employees should not be counted in points and fees. Some commenters stated that the proposed inclusion of loan originator compensation to employees is contrary to the intent of the statute, which the commenters argued was merely intended to cover business entities and not individuals. Other commenters stated, for example, that employee compensation is not a direct cost to the consumer and that it is indistinguishable from aspects of a company's overall cost and expenditure structure, such expenses for rent, marketing, or office supplies, which are not counted in points and fees.

A number of commenters noted that including compensation to individual loan originators in points and fees would constitute double-counting of costs, because loan originator compensation already is included in the cost of the loan, as an overhead charge. The commenters requested that the Bureau clarify, for example, that compensation paid by a lender to its own loan originator, which is not paid directly by the borrower but rather from the lender's profits or post-closing sale of the loan, should not be counted in points and fees. Similarly, at least one commenter requested that the Bureau clarify that lenders can assume that a fee paid to a broker includes any compensation paid to the broker's employees, and that the lender should have no responsibility to separately account for such payments. One commenter argued that, if compensation to mortgage broker employees is excluded, then compensation to retail loan officer employees should be excluded as well.

Some industry commenters asserted that including loan originator compensation in points and fees is not only unnecessary in light of other Bureau rulemakings, but also that including it would lead to anomalous results, because otherwise identical loans may have different points and fees depending on which loan officer originates a loan (*i.e.,* because better or more experienced loan originators tend to earn more compensation) or on when in the year a loan is originated (*i.e.,* because compensation tends to increase throughout the year as periodic, volume-based bonus thresholds are met). Neither of these factors is indicative of the terms of the loan itself, but consumers' access to credit could depends on such factors, because creditors likely would choose not to originate a loan if its associated loan originator compensation would cause its points and fees to exceed the HOEPA threshold. Commenters stated that the effects of such anomalous results could be felt within one company (*i.e.,* as between an experienced and a more junior loan officer), or between companies (*i.e.,* with one company that compensates its loan officers more than another company).

Industry commenters also asserted that developing company-wide systems to track employee compensation on a loan-by-loan basis would be highly burdensome, with little consumer benefit. The system changes that would be required would be complex, because there are so many variations in how compensation may be paid. Creditors would continue to face practical challenges even after such systems were established. Many compensation plans pay bonuses at the end of the month, period, or year, so determining compensation to be included at origination would be difficult. One result, commenters asserted, would be that the amount of compensation included in points and fees could be easily second-guessed after the fact, which could be highly problematic (particularly for assignees) considering the risk of liability attendant to originating or purchasing a high-cost mortgage. For example, commenters asserted that such second-guessing could increase the risk that a loan might be determined to be a high-cost mortgage, even if it was not clear to the creditor at origination that it was a high-cost mortgage. Finally, some commenters noted that a rule requiring accurate determination of compensation at origination would require wholesale changes in compensation practices, which is more appropriately addressed in other rulemakings.

Not only would tracking compensation be burdensome, but commenters requested additional guidance concerning when particular types of compensation would be required to be included in the calculation. For example, several commenters stated that compensation often is tied to conditions, such as continued employment, that are not known as of consummation. Other conditions to which compensation might be tied include, for example, the customer service rating of the loan originator, or overall company performance for a particular period of time. Some commenters similarly noted that it was unclear how to count compensation awarded in tiered compensation plans where, for example, the amount of compensation increases as the loan originator's total aggregate

volume increases. In such plans, commenters stated, the compensation tier cannot be determined until month- or quarter-end, and the rule as proposed is not clear about whether such compensation would need to be counted.

Several commenters suggested that, if the Bureau were to adopt a rule including individual loan originator compensation in points and fees, then the Bureau should clearly exclude certain types of compensation, such as salary and hourly wages, from the calculation. The commenters asserted that these types of compensation generally are not tied to any specific loan transaction. The commenters stated that it would be difficult to determine how much of such compensation to count in the points and fees calculation before or at consummation, that establishing systems to make such a determination would be costly, and that including hourly wages would create an incentive for loan originators to spend less time on loans, to the detriment of consumers and in contrast to the overall goal of ensuring, for example, careful loan underwriting.

A number of commenters requested additional guidance concerning the timing of the loan originator compensation calculation. The commenters stated that it would be impracticable to require compensation to be counted as of consummation. In this regard, several commenters asked whether compensation should be determined based on facts known at some earlier time, such as the rate-lock date.

Some commenters also emphasized the importance of having clear guidance concerning the amount of loan originator compensation to be included in points and fees. The commenters stated that ambiguous rules would make it difficult to know how much compensation to count for a particular transaction and, in turn, difficult to discern whether a transaction exceeds the HOEPA points and fees threshold. A few commenters noted that this is of particular concern for entities looking to purchase loans, or for entities conducting due diligence reviews prior to purchase, since it is necessary to determine if points and fees are accurate, to avoid purchasing a high-cost mortgage.

Finally, a number of industry commenters urged the Bureau to provide additional guidance concerning who would be considered a loan originator for purposes of the points and fees test. Several commenters objected to the fact that the Bureau seemingly had not coordinated its proposed definitions of ''loan originator'' across its various title XIV rulemakings, or with the definition of that term as set forth in the Secure and Fair Enforcement for Mortgage Licensing Act of 2008. The commenters noted that the Bureau's 2012 Loan Originator Proposal would have adopted a broad definition of loan originator. According to these commenters, a broad definition will be difficult to apply in the points and fees context, as it will require tracking compensation of anyone who, for compensation, takes an application, arranges, offers, negotiates, or otherwise obtains an extension of consumer credit for another person.

Manufactured housing industry commenters expressed a related concern about the definition of loan originator as applied to employees of manufactured home retailers. Under TILA's definition of loan originator, an ''activities-based'' test would apply in determining whether such a person was a loan originator. Thus, creditors would need to track the activities of manufactured home retailer employees to determine whether to count their compensation in points and fees. Commenters asserted that a manufactured home retailer has no way of knowing, or controlling, such activities for a given transaction. At least one commenter argued for a bright-line exclusion from loan originator compensation for any manufactured home retailer or its employees. Other commenters argued for replacing the activities-based exclusion with a bright-line test, such as an exclusion for retailer (or retailer employee) compensation that does not exceed what the retailer or its employee would have received in a comparable cash transaction.

Consumer group commenters strongly supported the inclusion of loan originator compensation in points and fees. The commenters noted that outsized mortgage broker compensation was one of the primary drivers of the passage of HOEPA in the mid-1990's. The commenters also noted that compensation schemes involving yield spread premiums later became another vehicle through which consumers were assessed costs they were wholly unaware existed, and that the Dodd-Frank Act sought to put such abuses to rest.[121]

Some consumer group commenters strongly opposed the Bureau's proposal to apply, in the points and fees context, TILA's activities-based test for determining whether an employee of a manufactured home retailer is a loan originator whose compensation must be counted. These commenters asserted that a test that attempts to distinguish between employees who, for example, take an application or advise on loan terms (*i.e.,* loan originators), from employees who merely assist a consumer in obtaining or applying for a loan (*i.e.,* not loan originators) would be unworkable. Commenters either argued that the activities listed in the activities-based test (*i.e.,* taking an application, advising on loan terms, or offering loan terms) should be broadly defined, or that any compensation paid to an employee of a manufactured home retailer to arrange financing should be included.

The Bureau has carefully considered the comments received in response to its 2012 HOEPA Proposal, as well as in response to the Board's 2011 ATR Proposal, in light of the concerns about various issues with regard to loan originator compensation practices, the general concerns about the impacts of the ability-to-repay/qualified mortgage rule and revised HOEPA thresholds on a market in which access to mortgage credit is already extremely tight, differences between the retail and wholesale origination channels, and practical considerations regarding both the burdens of day-to-day implementation and the opportunities for evasion by parties who wish to engage in rent-seeking. As discussed further below, the Bureau is concerned about implementation burdens and anomalies created by the requirement to include loan originator compensation in points and fees, the impacts that it could have on pricing and access to credit, and the risks that rent-seekers will continue to find ways to evade the statutory scheme. Nevertheless, the Bureau believes that, in light of the historical record and of Congress's evident concern with loan originator compensation practices, it would not be appropriate to waive the statutory requirement that loan originator compensation be included in points and fees. The Bureau has, however, worked to craft the rule that implements Congress' judgment in a way that is practicable and that reduces potential negative impacts of the statutory requirement, as discussed below. The Bureau is also seeking comment in the concurrent proposal being published elsewhere in today's **Federal Register** on whether additional measures would better protect consumers and reduce implementation burdens and unintended consequences.

[121] Commenters raised these objections in response to the Bureau's proposal to exclude loan originator compensation from the definition of points and fees for HELOCs. *See* the section-by-section analysis of § 1026.32(b)(2)(ii) below.

Accordingly, the 2013 ATR Final Rule in adopting § 1026.32(b)(1)(ii) has generally tracked the statutory language and the Board's proposal in the regulation text, but has expanded the commentary to provide more detailed guidance to clarify what compensation must be included in points and fees. The Dodd-Frank Act requires inclusion in points and fees of ''all compensation paid directly or indirectly by a consumer or creditor to a mortgage originator from any source, including a mortgage originator that is also the creditor in a table-funded transaction.'' *See* TILA section 103(bb)(4)(B). Consistent with the Board's proposal, revised § 1026.32(b)(ii) as adopted in the 2013 ATR Final Rule does not include the phrase ''from any source.'' The Bureau agrees that the phrase is unnecessary because the provision expressly covers compensation paid ''directly or indirectly'' to the loan originator. Like the Board's proposal, the final rule also uses the term ''loan originator'' as defined in § 1026.36(a)(1), not the term ''mortgage originator'' under section 1401 of the Dodd-Frank Act. *See* TILA section 103(cc)(2). The Bureau agrees that the definitions are consistent in relevant respects and notes that it is in the process of amending the regulatory definition to harmonize it even more closely with the Dodd-Frank Act definition of ''mortgage originator.'' [122] Accordingly, the Bureau believes use of consistent terminology in Regulation Z will facilitate compliance. Finally, as revised, § 1026.32(b)(1)(ii) also does not include the language in proposed § 226.32(b)(1)(ii) that specified that the provision also applies to a loan originator that is the creditor in a table-funded transaction. The Bureau has concluded that that clarification is unnecessary because a creditor in a table-funded transaction is already included in the definition of loan originator in § 1026.36(a)(1). To clarify what compensation must be included in points and fees, revised § 1026.32(b)(1)(ii) specifies that compensation must be included if it can be attributed to the particular transaction at the time the interest rate is set. These limitations are discussed in more detail below.

In adopting the general rule, the Bureau carefully considered arguments by industry commenters that loan originator compensation should not be included in points and fees because other statutory provisions and rules already regulate loan originator compensation, because loan originator compensation is already included in the costs of mortgage loans, and because including loan originator compensation in points and fees would push many loans over the 3 percent cap on points and fees for qualified mortgages (or even over the points and fees limits for determining whether a loan is a high-cost mortgage under HOEPA), which would increase costs and impair access to credit.

The Bureau views the fact that other provisions within the Dodd-Frank Act address other aspects of loan originator compensation and activity as evidence of the high priority that Congress placed on regulating such compensation. The other provisions pointed to by the commenters address specific compensation practices that created particularly strong incentives for loan originators to ''upcharge'' consumers on a loan-by-loan basis and particular confusion about loan originators' loyalties. The Bureau believes that the inclusion of loan originator compensation in points and fees has distinct purposes. In addition to discouraging more generalized rent-seeking and excessive loan originator compensation, the Bureau believes that Congress may have been focused on particular risks to consumers. Thus, with respect to qualified mortgages, including loan originator compensation in points and fees helps to ensure that, in cases in which high up-front compensation might otherwise cause the creditor and/or loan originator to be less concerned about long-term sustainability, the creditor is not able to invoke a presumption of compliance if challenged to demonstrate that it made a reasonable and good faith determination of the consumer's ability to repay the loan. Similarly in HOEPA, the threshold triggers additional consumer protections, such as enhanced disclosures and housing counseling, for the loans with the highest up-front pricing.

The Bureau recognizes that the method that Congress chose to effectuate these goals does not ensure entirely consistent results as to whether a loan is a qualified mortgage or a high-cost transaction. For instance, loans that are identical to consumers in terms of up-front costs and interest rate may nevertheless have different points and fees based on the identity of the loan originator who handled the transaction for the consumer, since different individual loan originators in a retail environment or different brokerage firms in a wholesale environment may earn different commissions from the creditor without that translating in differences in costs to the consumer. In addition, there are anomalies introduced by the fact that ''loan originator'' is defined to include mortgage broker firms and individual employees hired by either brokers or creditors, but not creditors themselves. As a result, counting the total compensation paid to a mortgage broker firm will capture both the firm's overhead costs and the compensation that the firm passes on to its individual loan officer. By contrast, in a retail transaction, the creditor would have to include in points and fees the compensation that it paid to its loan officer, but would continue to have the option of recovering its overhead costs through the interest rate, instead of an up-front charge, to avoid counting them toward the points and fees thresholds. Indeed, the Bureau expects that the new requirement may prompt creditors to shift certain other expenses into rate to stay under the thresholds.

Nevertheless, to the extent there are anomalies from including loan originator compensation in points and fees, these anomalies appear to be the result of deliberate policy choices by Congress to expand the historical definition of points and fees to include all methods of loan originator compensation, whether derived from up-front charges or from the rate, without attempting to capture all overhead expenses by creditors or the gain on sale that the creditor can realize upon closing a mortgage. The Bureau agrees that counting loan originator compensation that is structured through rate toward the points and fees thresholds could cause some loans not to be classified as qualified mortgages and to trigger HOEPA protections, compared to existing treatment under HOEPA and its implementing regulation. However, the Bureau views this to be exactly the result that Congress intended.

In light of the express statutory language and Congress's evident concern with increasing consumer protections in connection with high levels of loan originator compensation, the Bureau does not believe that it is appropriate to use its exception or adjustment authority in TILA section 105(a) to exclude loan originator compensation entirely from points and fees for qualified mortgages and HOEPA. As discussed below, however, the Bureau is attempting to implement the points and fees requirements with as much sensitivity as practicable to potential impacts on the pricing of and availability of credit, anomalies and unintended consequences, and compliance burdens.

[122] *See* 2012 Loan Originator Proposal, 77 FR 55283–88.

The Bureau also carefully considered comments urging it to exclude compensation paid to individual loan originators from points and fees, but ultimately concluded that such a result would be inconsistent with the plain language of the statute and could exacerbate the potential inconsistent effects of the rule on different mortgage origination channels. As noted above, many industry commenters argued that, even if loan originator compensation were not excluded altogether, at least compensation paid to individual loan originators should be excluded from points and fees. Under this approach, only payments to mortgage brokers would be included in points and fees. The commenters contended that it would be difficult to track compensation paid to individual loan originators, particularly when that compensation may be paid after consummation of the loan and that it would create substantial compliance problems. They also argued that including compensation paid to individual loan originators in points and fees would create anomalies, in which identical transactions from the consumer's perspective (*i.e.,* the same interest rate and up-front costs) could nevertheless have different points and fees because of loan originator compensation.

As explained above, the Bureau does not believe it is appropriate to use its exception authority to exclude loan originator compensation from points and fees, and even using that exception authority more narrowly to exclude compensation paid to individual loan originators could undermine Congress's apparent goal of providing stronger consumer protections in cases of high loan originator compensation. Although earlier versions of legislation focused specifically on compensation to ''mortgage brokers,'' which is consistent with existing HOEPA, the Dodd-Frank Act refers to compensation to ''mortgage originators,'' a term that is defined in detail elsewhere in the statute to include individual loan officers employed by both creditors and brokers, in addition to the brokers themselves. To the extent that Congress believed that high levels of loan originator compensation evidenced additional risk to consumers, excluding individual loan originators from consideration appears inconsistent with this policy judgment.

Moreover, the Bureau notes that using exception authority to exclude compensation paid to individual loan originators would exacerbate the differential treatment between the retail and wholesale channels concerning overhead costs. As noted above, compensation paid by the consumer or creditor to the mortgage broker necessarily will include amounts for both the mortgage broker's overhead and profit and for the compensation the mortgage broker passes on to its loan officer. Excluding individual loan officer compensation on the retail side, however, would effectively exempt creditors from counting any loan originator compensation at all toward points and fees. Thus, for transactions that would be identical from the consumer's perspective in terms of interest rate and up-front costs, the wholesale transaction could have significantly higher points and fees (because the entire payment from the creditor to the mortgage broker would be captured in points and fees), while the retail transaction might include no loan origination compensation at all in points and fees. Such a result would put brokerage firms at a disadvantage in their ability to originate qualified mortgages and put them at significantly greater risk of originating HOEPA loans. This in turn could constrict the supply of loan originators and the origination channels available to consumers to their detriment.

The Bureau recognizes that including compensation paid to individual loan originators, such as loan officers, with respect to individual transactions may impose additional burdens. For example, creditors will have to track employee compensation for purposes of complying with the rule, and the calculation of points and fees will be more complicated. However, the Bureau notes that creditors and brokers already have to monitor compensation more carefully as a result of the 2010 Loan Originator Final Rule and the related Dodd-Frank Act restrictions on compensation based on terms and on dual compensation. The Bureau also believes that these concerns can be reduced by providing clear guidance on issues such as what types of compensation are covered, when compensation is determined, and how to avoid ''double-counting'' payments that are already included in points and fees calculations. The Bureau has therefore revised the Board's proposed regulation and commentary to provide more detailed guidance, and is seeking comment in the proposal published elsewhere in the **Federal Register** today on additional guidance and potential implementation issues among other matters.

As noted above, the Bureau is revising § 1026.32(b)(1)(ii) to clarify that compensation must be counted toward the points and fees thresholds if it can be attributed to the particular transaction at the time the interest rate is set. The Bureau is also revising comment 32(b)(1)(ii)–1 to explain in general terms when compensation qualifies as loan originator compensation that must be included in points and fees. In particular, compensation paid by a consumer or creditor to a loan originator is included in the calculation of points and fees, provided that such compensation can be attributed to that particular transaction at the time the interest rate is set. The Bureau also incorporates part of proposed comment 32(b)(1)(ii)–3 into revised comment 32(b)(1)(ii)–1, explaining that loan originator compensation includes amounts the loan originator retains, and is not dependent on the label or name of any fee imposed in connection with the transaction. However, revised comment 32(b)(1)(ii)–1 does not include the example from proposed comment 32(b)(1)(ii)–3, which stated that, if a loan originator imposes a processing fee and retains the fee, the fee is loan originator compensation under § 1026.32(b)(1)(ii) whether the originator expends the fee to process the consumer's application or uses it for other expenses, such as overhead. That example may be confusing in this context because a processing fee paid to a loan originator likely would be a finance charge under § 1026.4 and would therefore already be included in points and fees under § 1026.32(b)(1)(i).

Revised comment 32(b)(1)(ii)–2.i explains that compensation, such as a bonus, commission, or an award of merchandise, services, trips or similar prizes, must be included only if it can be attributed to a particular transaction. The requirement that compensation is included in points and fees only if it can be attributed to a particular transaction is consistent with the statutory language. The Dodd-Frank Act provides that, for the points and fees tests for both qualified mortgages and high-cost mortgages, only charges that are ''in connection with'' the transaction are included in points and fees. *See* TILA sections 103(bb)(1)(A)(ii) (high-cost mortgages) and 129C(b)(2)(A)(vii) (qualified mortgages). Limiting loan originator compensation to compensation that is attributable to the transaction implements the statutory requirement that points and fees are ''in connection'' with the transaction. This limitation also makes the rule more workable. Compensation is included in points and fees only if it can be attributed to a specific transaction to facilitate compliance with the rule and avoid over-burdening creditors with

complex calculations to determine, for example, the portion of a loan officer's salary that should be counted in points and fees.[123] For clarity, the Bureau has moved the discussion of the timing of loan originator compensation into new comment 32(b)(1)(ii)–3, and has added additional examples to 32(b)(1)(ii)–4, to illustrate the types and amount of compensation that should be included in points and fees.

Revised comment 32(b)(1)(ii)–2.ii explains that loan originator compensation excludes compensation that cannot be attributed to a particular transaction at the time the interest rate is set, including, for example, compensation based on the long-term performance of the loan originator's loans or on the overall quality of the loan originator's loan files. The base salary of a loan originator is also excluded, although additional compensation that is attributable to a particular transaction must be included in points and fees. The Bureau has decided to seek further comment in the concurrent proposal regarding treatment of hourly wages for the actual number of hours worked on a particular transaction. The Board's proposal would have included hourly pay for the actual number of hours worked on a particular transaction in loan originator compensation for purposes of the points and fees thresholds, and the Bureau agrees that such wages are attributable to the particular transaction. However, the Bureau is unclear as to whether industry actually tracks compensation this way in light of the administrative burdens. Moreover, while the general rule provides for calculation of loan originator compensation at the time the interest rate is set for the reasons discussed above, the actual hours of hours worked on a transaction would not be known at that time. The Bureau is therefore seeking comment on issues relating to hourly wages, including whether to require estimates of the hours to be worked between rate set and consummation.

[123] In contrast, the existing restrictions on particular loan originator compensation structures in § 1026.36 apply to all compensation such as salaries, hourly wages, and contingent bonuses because those restrictions apply only at the time such compensation is paid, and therefore they can be applied with certainty. Moreover, those rules also provide for different treatment of compensation that is not ''specific to, and paid solely in connection with, the transaction,'' where such a distinction is necessary for reasons of practical application of the rule. *See* comment 36(d)(2)–1 (prohibition of loan originator receiving compensation directly from consumer and also from any other person does not prohibit consumer payments where loan originator also receives salary or hourly wage).

New comment 32(b)(1)(ii)–3 explains that loan originator compensation must be included in the points and fees calculation for a transaction whenever the compensation is paid, whether before, at or after closing, as long as that compensation amount can be attributed to the particular transaction at the time the interest rate is set. Some industry commenters expressed concern that it would be difficult to determine the amount of compensation that would be paid after consummation and that creditors might have to recalculate loan originator compensation (and thus points and fees) after underwriting if, for example, a loan officer became eligible for higher compensation because other transactions had been consummated. The Bureau appreciates that industry participants need certainty at the time of underwriting as to whether transactions will exceed the points and fees limits for qualified mortgages (and for high-cost mortgages). To address this concern, the comment 32(b)(1)(ii)–3 explains that loan originator compensation should be calculated at the time the interest rate is set. The Bureau believes that the date the interest rate is set is an appropriate standard for calculating loan originator compensation. It would allow creditors to be able to calculate points and fees with sufficient certainty so that they know early in the process whether a transaction will be a qualified mortgage or a high-cost mortgage.

As noted above, several industry commenters argued that including loan originator compensation in points and fees would result in double counting. They stated that creditors often will recover loan originator compensation costs through origination charges, and these charges are already included in points and fees under § 1026.32(b)(1)(i). However, the underlying statutory provisions as amended by the Dodd-Frank Act do not express any limitation on its requirement to count loan originator compensation toward the points and fees test. Rather, the literal language of TILA section 103(bb)(4) as amended by the Dodd-Frank Act defines points and fees to include all items included in the finance charge (except interest rate), all compensation paid directly or indirectly by a consumer or creditor to a loan originator, ''and'' various other enumerated items. The use of ''and'' and the references to ''all'' compensation paid ''directly or indirectly'' and ''from any source'' suggest that compensation should be counted as it flows downstream from one party to another so that it is counted each time that it reaches a loan originator, whatever the previous source.

The Bureau believes the statute would be read to require that loan originator compensation be treated as additive to the other elements of points and fees. The Bureau believes that an automatic literal reading of the statute in all cases, however, would not be in the best interest of either consumers or industry. For instance, the Bureau does not believe that it is necessary or appropriate to count the same payment made by a consumer to a mortgage broker firm twice, simply because it is both part of the finance charge and loan originator compensation. Similarly, the Bureau does not believe that, where a payment from either a consumer or a creditor to a mortgage broker is counted toward points and fees, it is necessary or appropriate to count separately funds that the broker then passes on to its individual employees. In each case, any costs and risks to the consumer from high loan originator compensation are adequately captured by counting the funds a single time against the points and fees cap; thus, the Bureau does not believe the purposes of the statute would be served by counting some or all of the funds a second time, and is concerned that doing so could have negative impacts on the price and availability of credit.

Determining the appropriate accounting rule is significantly more complicated, however, in situations in which a consumer pays some up-front charges to the creditor and the creditor pays loan originator compensation to either its own employee or to a mortgage broker firm. Because money is fungible, tracking how a creditor spends money it collects in up-front charges versus amounts collected through the rate to cover both loan originator compensation and its other overhead expenses would be extraordinarily complex and cumbersome. To facilitate compliance, the Bureau believes it is appropriate and necessary to adopt one or more generalized rules regarding the accounting of various payments. However, the Bureau does not believe it yet has sufficient information with which to choose definitively between the additive approach provided for in the statutory language and other potential methods of accounting for payments in light of the multiple practical and complex policy considerations involved.

The potential downstream effects of different accounting methods are significant. Under the additive approach where no offsetting consumer payments against creditor-paid loan originator compensation is allowed, creditors

whose combined loan originator compensation and up-front charges would otherwise exceed the points and fees limits would have strong incentives to cap their up-front charges for other overhead expenses under the threshold and instead recover those expenses by increasing interest rates to generate higher gains on sale. This would adversely affect consumers who prefer a lower interest rate and higher up-front costs and, at the margins, could result in some consumers being unable to qualify for credit. Additionally, to the extent creditors responded to a ''no offsetting'' rule by increasing interest rates, this could increase the number of qualified mortgages that receive a rebuttable rather than conclusive presumption of compliance.

One alternative would be to allow all consumer payments to offset creditor-paid loan originator compensation. However, a ''full offsetting'' approach would allow creditors to offset much higher levels of up-front points and fees against expenses paid through rate before the heightened consumer protections required by the Dodd-Frank Act would apply. Particularly under HOEPA, this may raise tensions with Congress's apparent intent. Other alternatives might use a hybrid approach depending on the type of expense, type of loan, or other factors, but would involve more compliance complexity.

In light of the complex considerations, the Bureau believes it is necessary to seek additional notice and comment. The Bureau therefore is finalizing this rule without qualifying the statutory result and is proposing two alternative comments in the concurrent proposal, one of which would explicitly preclude offsetting, and the other of which would allow full offsetting of any consumer-paid charges against creditor-paid loan originator compensation. The Bureau is also proposing comments to clarify treatment of compensation paid by consumers to mortgage brokers and by mortgage brokers to their individual employees. The Bureau is seeking comment on all aspects of this issue, including the market impacts and whether adjustments to the final rule would be appropriate. In addition, the Bureau is seeking comment on whether it would be helpful to provide for additional adjustment of the rules or additional commentary to clarify any overlaps in definitions between the points and fees provisions in this rulemaking and the 2013 ATR Final Rule and the provisions that the Bureau is separately finalizing in connection with the Bureau's 2012 Loan Originator Compensation Proposal.

Finally, comment 32(b)(1)(ii)–4 includes revised versions of examples in proposed comment 32(b)(1)(ii)–2, as well as additional examples to provide additional guidance regarding what compensation qualifies as loan originator compensation that must be included in points and fees. These examples illustrate when compensation can be attributed to a particular transaction at the time the interest rate is set. New comment 32(b)(1)(ii)–5 adds an example explaining how salary is treated for purposes of loan originator compensation for calculating points and fees.

32(b)(1)(iii)

Real Estate-Related Charges

Since the enactment of HOEPA in 1994, TILA section 103(aa)(4)(C) has provided that points and fees for HOEPA coverage *include* each charge listed in TILA section 106(e) (except escrow for the future payment of taxes), unless the charge is reasonable, the creditor receives no direct or indirect compensation in connection with the charge, and the charge is paid to a third party unaffiliated with the creditor.[124] If any of the conditions are not met, then the charge must be included. Thus, such charges—*i.e.,* TILA section 106(a) charges paid to affiliates of the creditor, except such charges that are escrowed for the future payment of taxes—have always been included in the calculation of points and fees for high-cost mortgages, even if they were not included in the finance charge. The long-standing statutory requirement to include such charges in points and fees is implemented in existing § 1026.32(b)(1)(iii).

As noted in the preamble of the Bureau's 2012 HOEPA Proposal, the Dodd-Frank Act did not amend TILA section 103(aa)(4)(C). However, as also noted in the 2012 HOEPA Proposal, the Board nevertheless proposed certain clarifying revisions to § 226.32(b)(1)(iii) in its 2011 ATR Proposal. In brief, the Board's proposed revisions would have added the phrase ''payable at or before closing of the mortgage'' loan. The Board's proposal would have added this limiting language to clarify that, notwithstanding the Dodd-Frank Act's amendments to TILA requiring the inclusion in points and fees of all charges payable ''in connection with the transaction'' (*see* the section-by-section analysis of § 1026.32(b)(1) above), the charges listed in § 1026.4(c)(7) would only need to be included if they were payable at or before consummation. For consistency with the Dodd-Frank Act, the Board's proposal also would have enumerated separately as § 1026.32(b)(1)(iii)(A) through (C) the three long-standing pre-conditions for excluding from points and fees the charges referred to in § 226.32(b)(1)(iii).[125]

Proposed § 1026.32(b)(1)(iii) and comment 32(b)(1)(iii)–1 in the Bureau's 2012 HOEPA Proposal republished the revisions proposed in the 2011 ATR Proposal and only minor, non-substantive changes. Proposed § 1026.32(b)(1)(iii) in the Bureau's 2012 HOEPA Proposal thus would have provided for the inclusion in points and fees for closed-end credit transactions ''all items listed in § 1026.4(c)(7) (other than amounts held for future payment of taxes) payable at or before consummation of the mortgage loan, unless: (A) The charge is reasonable; (B) the creditor receives no direct or indirect compensation in connection with the charge; and (C) the charge is not paid to an affiliate of the creditor.''

Proposed comment 32(b)(1)(iii)–1 in the Bureau's 2012 HOEPA Proposal would have republished this comment as set forth in the 2011 ATR Proposal, with one minor change. Specifically, the Bureau's proposed comment 32(b)(1)(iii)–1 would have provided that a fee paid by the consumer for an appraisal performed by the creditor must be included in points and fees under § 1026.32(b)(1)(iii), but the comment would have removed the phrase ''even though the fee may be excludable from the finance charge if it is bona fide and reasonable in amount.'' The Bureau would have made this proposed revision to comment 32(b)(1)(iii)–1 for consistency with the Bureau's proposed more inclusive definition of the finance charge, which would have included such appraisal fees in the finance charge in all cases (*i.e.,* whether or not such fees were bona fide and reasonable in amount).

In sum, neither the Board's 2011 ATR Proposal, nor the Bureau's 2012 HOEPA Proposal, would have expanded the scope of items to be included in points and fees under § 1026.32(b)(1)(iii), but only would have made certain clarifying changes. The Bureau nevertheless received a number of comments from industry in response to proposed

[124] *See* TILA section 106(e)(1) (fees or premiums for title examination, title insurance, or similar purposes), (2) (fees for preparation of loan-related documents), (3) (escrows for future payment of taxes and insurance), (4) (fees for notarizing deeds and other documents), (5) (appraisal fees, including fees related to any pest infestation or flood hazard inspection conducted prior to closing), and (6) (credit reports).

[125] *See* 76 FR 27390, 27404, 27481, 27489 (May 11, 2011).

§ 1026.32(b)(1)(iii) as set forth in the 2012 HOEPA Proposal.

Uncertainty Concerning the Definition of Points and Fees. First, the Bureau received several comments suggesting that commenters were uncertain as to the interaction of proposed § 1026.32(b)(1)(i) (finance charge prong of points and fees) and (iii) (real estate-related charges). Commenters noted that the Bureau's proposed § 1026.32(b)(1)(iii) would have required the *inclusion in points and fees* in certain circumstances of items that the Bureau's proposed § 1026.32(b)(1)(i) otherwise would have *excluded from points and fees* through that provision's reliance on the finance charge as the starting point for the points and fees calculation. Commenters stated that, for example, proposed § 1026.32(b)(1)(i) would not require the inclusion in points and fees of charges payable in a comparable cash transaction (because such charges are excluded from the definition of the finance charge), but that proposed § 1026.32(b)(1)(iii) nevertheless would require such charges to be included if they were among the items listed in § 1026.4(c)(7) and met any of the other conditions specified in § 1026.32(b)(1)(iii) (*e.g.,* the amount of the charge is unreasonable, the creditor receives direct or indirect compensation in connection with the charge, or the charge is paid to an affiliate of the creditor).[126] Commenters similarly noted that § 1026.32(b)(1)(iii) would *include* in points and fees charges set forth in § 1026.4(c)(7) unless they are reasonable and paid to a third party, but that § 1026.4(c)(7) itself specifies a list of real estate-related fees that are *excluded* from the definition of the finance charge (and therefore arguably excluded from points and fees under § 1026.32(b)(1)(i)). These commenters advocated either that the Bureau clarify whether the categories of charges discussed above are included in, or excluded from, points and fees, or that the Bureau clarify the points and fees definition by adopting a ''plain English'' approach. Finally, one commenter requested that the Bureau clarify whether property taxes are excluded from points and fees in all cases, regardless of whether they are reasonable in amount.

As noted above, neither proposed 1026.32(b)(1)(i) nor proposed § 1026.32(b)(1)(iii) in the Bureau's 2012 HOEPA Proposal were intended to change the types of charges included in points and fees through these provisions, or the way that these provisions work together to define points and fees. The Bureau notes that much of the complexity that exists in the existing points and fees definition and about which industry commenters complained arises from the requirement in TILA to use the finance charge as the starting point for points and fees.

To address any uncertainty, however, the Bureau notes that commentary to § 1026.32(b)(1)(i) as adopted in the 2013 ATR Final Rule provides an example of how § 1026.32(b)(1)(i) and (iii) work together. Specifically, comment 32(b)(1)(i)–1, as adopted in that rulemaking, provides that, if an item meets the conditions for inclusion in points and fees specified in § 1026.32(b)(1)(iii), then it must be included in points and fees irrespective of whether it constitutes a finance charge and, in turn, irrespective of whether it would have been included in points and fees under § 1026.32(b)(1)(i) (*i.e.,* even if payable in a comparable cash transaction). In other words, the finance charge merely constitutes the starting point for points and fees.[127]

''Reasonable'' or ''Bona Fide'' Charges. As noted in the section-by-section analysis of § 1026.32(b)(1)(i)(D) above, several industry commenters argued that the Dodd-Frank Act adopted a ''bona fide,'' rather than a ''reasonable'' standard for the exclusion from points and fees of third-party charges when it amended TILA section 103(bb)(1)(A)(ii) (*i.e.,* HOEPA's points and fees coverage test) to exclude from points and fees bona fide third-party charges not retained by a creditor or its affiliate. These commenters objected to the requirement under proposed § 1026.32(b)(1)(iii) that the third-party charges covered by that provision be ''reasonable'' (as opposed to ''bona fide'') to be excluded from points and fees.

The Bureau disagrees that Congress intended that a ''bona fide'' test apply in determining whether all third-party charges may be excluded from points and fees. As noted in the Bureau's 2013 ATR Final Rule, which interprets similar provisions of TILA for qualified mortgages,[128] at the same time that Congress added the bona fide third-party charge language to TILA in section 103(bb)(1)(A)(ii), it retained long-standing TILA section 103(aa)(4)(C), requiring that, as a pre-condition for excluding the third-party charges listed in § 1026.4(c)(7) from points and fees, that such charges be ''reasonable.'' The Bureau does not believe that the new ''bona fide'' third-party charge exclusion renders the pre-existing ''reasonable'' third-party charge exclusion meaningless and, in the absence of any evidence that the ''reasonable'' provision has been unworkable, the Bureau declines to alter it. Instead, as discussed in the section-by-section analysis of § 1026.32(b)(1)(i)(D) above, the Bureau concludes, consistent with its determination in the 2013 ATR Final Rule, that § 1026.32(b)(1)(iii), which specifically addresses the exclusion of items listed in § 1026.4(c)(7), takes precedence over the more general exclusion for bona fide third-party charges. In response to commenters' concerns that the ''reasonableness'' of third-party charges may be second-guessed, the Bureau notes its belief that the fact that a transaction for such services is conducted at arms-length ordinarily should be sufficient to ensure that the charge is reasonable.[129]

Charges of Affiliated Settlement Service Providers. Many industry commenters argued that the points and fees definition for high-cost mortgages should not distinguish between fees paid to affiliate and non-affiliate service providers. Commenters thus suggested that the Bureau use its exception authority to level the playing field either by excluding bona fide and reasonable affiliate fees from points and fees, or by requiring that all non-affiliated service provider fees be included. Commenters alternatively suggested that the Bureau require affiliate charges to be included in points and fees only to the extent that such charges are unreasonable or exceed the market price charged by unaffiliated service providers. Commenters advanced a number of arguments in support of these positions.

Commenters argued that there is no basis for a distinction between affiliate and non-affiliate charges, notwithstanding that TILA contemplates just such a distinction for points and fees. These commenters stated that affiliate business arrangements are

[126] The commenters suggested that such fees payable in a comparable cash transaction be excluded from points and fees.

[127] In response to commenters' questions concerning property taxes, the Bureau notes that escrowed taxes are excluded from the real estate-related charges that must be included in points and fees under certain circumstances.

[128] For qualified mortgages, the statutory counterpart to TILA section 103(bb)(1)(A)(ii) for high-cost mortgages is TILA section 129C(b)(2)(C)(i), which excludes bona fide third-party charges not retained by a creditor or its affiliate from the calculation of points and fees for qualified mortgages.

[129] The Bureau declines, however, to adopt a rule, as suggested by one industry commenter, that any fee permitted under the customary and reasonable appraisal fee rule in § 1026.42(f), is *per se* reasonable under § 1026.32(b)(1)(iii) and bona fide under § 1026.32(b)(1)(i)(D). Again, in the absence of evidence that the pre-existing reasonableness test in § 1026.32(b)(1)(iii) has been unworkable, the Bureau declines to change it.

expressly permitted and regulated by RESPA, that the Bureau has not articulated any policy purpose or consumer benefit to including affiliate fees in points and fees, and that the Bureau's 2012 HOEPA Proposal would discourage the use of affiliates, which undercuts a goal of the Bureau's 2012 TILA–RESPA Integration Proposal to increase certainty around the cost of affiliate providers by providing for a zero tolerance for settlement charges of affiliated entities. The commenters further stated that affiliate charges, just like charges for services by unaffiliated service providers, are set largely by factors outside the creditor's control, such as market price.

Commenters similarly argued that the HOEPA proposal's inclusion of affiliated third-party charges in points and fees would harm consumers while providing no countervailing benefit. The commenters asserted that roughly 26 percent of the market uses affiliate service providers, and that these providers offer value, convenience, efficiency, and reliability to consumers by providing ''one-stop shopping,'' speeding up loan closings, and allowing creditors to control the quality of ancillary settlement services. Commenters pointed to studies demonstrating that affiliate settlement service providers are competitive in cost with unaffiliated service providers and argued that consumers would be harmed by reduced choice and by having to pay higher prices as a result of reduced competition as lenders avoided using affiliated service providers rather than risk high-cost mortgage coverage through the points and fees threshold.

Certain commenters expressed particular concern about the inclusion in points and fees of affiliated title charges. These commenters stated that there is no rational basis for requiring affiliated title charges to be included in points and fees, because, for example, title insurance fees are regulated at the State level either through statutorily-prescribed rates, or through a requirement that title insurance premiums be publicly filed. Commenters noted that, as a result of State regulation, there is little variation in title insurance charges from provider to provider and such charges are not subject to manipulation. In a variation of the argument that the Bureau generally should exclude affiliate settlement charges from points and fees, some commenters suggested that the Bureau should adopt a specific carve-out for affiliate title fees to the extent such fees are otherwise regulated at the State level, or to the extent that such charges are reasonable and do not exceed the cost for unaffiliated title insurance.

The Bureau is adopting § 1026.32(b)(1)(iii) and related commentary in the 2013 ATR Final Rule substantially as proposed in the 2011 ATR and 2012 HOEPA Proposals.[130] The rationale set forth in the section-by-section analysis of § 1026.32(b)(1)(iii) in the 2013 ATR Final Rule applies equally to this rulemaking. TILA section 103(bb)(4) specifically mandates that fees paid to and retained by affiliates of the creditor be included in calculating points and fees for high-cost mortgages. To exclude such fees from points and fees for purposes of determining high-cost mortgage coverage, the Bureau would have to use its exception authority under TILA section 105(a). The Bureau is aware of concerns that including fees paid to affiliates in points and fees could make it more difficult for creditors using affiliated service providers to stay under the points and fees threshold for high-cost mortgages. On the other hand, fees paid to an affiliate pose greater risks to the consumer, since affiliates of a creditor may not have to compete in the market with other providers of a service and thus may charge higher prices that get passed on to the consumer. The Bureau believes that Congress weighed these competing considerations and elected not to exclude fees paid to affiliates. Indeed, title XIV repeatedly differentiates between affiliates and independent, third-party service providers. *See, e.g.,* Dodd-Frank Act sections 1403, 1411, 1412, 1414, and 1431. The Bureau is not aware of any empirical evidence suggesting that Congress's election, if implemented, would affect the availability of responsible credit, or otherwise harm consumers, and therefore does not believe that it would be appropriate to use its exception authority in this instance.

32(b)(1)(iv)

As noted in the Bureau's 2013 ATR Final Rule, section 1431(c) of the Dodd-Frank Act amended TILA to add new TILA section 103(bb)(4)(D), which codifies, with a few adjustments, existing § 1026.32(b)(1)(iv). Section 1026.32(b)(1)(iv) requires the inclusion in points and fees for high-cost mortgages of certain credit insurance and debt cancellation premiums.

The Board's 2011 ATR Proposal would have implemented TILA section 103(bb)(4)(D) by amending existing § 226.32(b)(1)(iv) to track the language set forth in the Dodd-Frank Act.[131] Specifically, the 2011 ATR Proposal would have provided that points and fees include premiums payable at or before closing for any credit life, disability, unemployment, or credit property insurance, or any other accident, loss-of-income, life or health insurance, or any payments directly or indirectly for any debt cancellation or suspension agreement or contract. The 2011 ATR Proposal also would have added new comment 32(b)(1)(iv)–2 to clarify that ''credit property insurance'' includes insurance against loss or damage to personal property such as a houseboat or manufactured home.

Proposed § 1026.32(b)(1)(iv) in the Bureau's 2012 HOEPA Proposal republished the Board's proposed revisions and additions to § 226.32(b)(1)(iv) and comment 32(b)(1)(iv)–1, as well as the Board's proposed new comment 32(b)(1)(iv)–2, substantially as proposed in the Board's 2011 ATR Proposal.[132] In addition, proposed comment 32(b)(1)(iv)–1 would have clarified that credit insurance premiums must be included in points and fees if they are paid at consummation, whether they are paid in cash or, if permitted by applicable law, financed. The Bureau stated that the clarifying phrase ''if permitted by applicable law'' was necessary because section 1414 of the Dodd-Frank Act added to TILA new section 129C(d) prohibiting the financing of most types of credit insurance.[133]

[130] Comment 32(b)(1)(iii)–1 is adopted in the 2013 ATR Final Rule without the change proposed in the 2012 HOEPA Proposal that would have accounted for the Bureau's proposed more inclusive definition of the finance charge. As discussed, the Bureau plans to determine whether to finalize the more inclusive finance charge proposed in its 2012 TILA–RESPA Integration Proposal at a later time, in conjunction with the finalization of that proposal.

[131] *See* 76 FR 27390, 27404–05, 27481, 27489 (May 11, 2011).

[132] In its 2011 ATR Proposal, the Board did not propose to implement in the definition of points and fees the provision in section 1431(c) of the Dodd-Frank Act that specifies that ''insurance premiums or debt cancellation or suspension fees calculated and paid in full on a monthly basis shall not be considered financed by the creditor.'' In its 2012 HOEPA Proposal, the Bureau proposed to implement that provision in proposed § 1026.34(a)(10) prohibiting the financing of points and fees for high-cost mortgages. *See* the section-by-section analysis of § 1026.34(a)(10) below.

[133] In general, TILA section 129C(d) provides that no creditor may finance, directly or indirectly, in connection with any residential mortgage loan or with any extension of credit under an open-end consumer credit plan secured by the principal dwelling of the consumer, any credit life, credit disability, credit unemployment, or credit property insurance, or any other accident, loss-of-income, life, or health insurance, or any payments directly or indirectly for any debt cancellation or suspension agreement or contract. TILA section 129C(d)(1) specifies that insurance premiums or

Continued

The Bureau did not receive many comments on proposed § 1026.32(b)(1)(iv) as set forth in the 2012 HOEPA Proposal. A few industry commenters requested that the Bureau clarify whether insurance premiums that are solely for the consumer's benefit, such as homeowner's insurance, must be included in points and fees. One such commenter specifically noted that certain types of voluntary insurance and service contract products for manufactured homes, like homeowner's insurance, protect the consumer as beneficiary and not the creditor. This commenter requested that the Bureau clarify in commentary that such products are clearly excluded from the definition of credit property insurance. At least one industry commenter also stated that the statutory (and thus Regulation Z's) definition of points and fees contradicts itself on whether hazard insurance premiums are included. The commenter stated that hazard insurance premiums are payable in comparable cash transactions, and therefore excluded under § 1026.32(b)(1)(i) (the finance charge prong of points and fees). The commenter argued that the regulation should be clear that hazard insurance premiums are excluded from points and fees in all cases because they are payable in a cash transaction.

The Bureau is adopting § 1026.32(b)(1)(iv) and comments 32(b)(1)(iv)–1 and –2 in the 2013 ATR Final Rule substantially as proposed in the 2011 ATR and 2012 HOEPA Proposals. However, as noted in the 2013 ATR Final Rule, § 1026.32(b)(1)(iii) is adopted in that rulemaking with the clarification in comment 32(b)(1)(iii)–3 that premiums or other charges for ''any other life, accident, health, or loss-of-income insurance'' need not be included in points and fees if the consumer is the sole beneficiary of the insurance. As with other charges that are specifically required to be included in points and fees, hazard insurance premiums (unless solely for the benefit of the consumer) are included even if they are not payable in a comparable cash transaction and thus not part of the finance charge.

32(b)(1)(v)

As noted in the Bureau's 2013 ATR Final Rule, section 1431(c) of the Dodd-Frank Act amended TILA to add new TILA section 103(bb)(4)(E), which requires the inclusion in points and fees of the maximum prepayment fees and penalties which may be charged or collected under the terms of the credit transaction. The Board's 2011 ATR Proposal proposed to implement this statutory change in new § 226.32(b)(1)(v).[134] Proposed § 1026.32(b)(1)(v) in the Bureau's 2012 HOEPA Proposal republished the Board's proposed § 226.32(b)(1)(v), except that it would have replaced a cross-reference to the Board's proposed definition of prepayment penalty for qualified mortgages (*i.e.,* the Board's proposed § 226.43(b)(10)) with a cross-reference to the definition of prepayment penalty for closed-end credit transactions set forth in the HOEPA Proposal's § 1026.32(b)(8)(i).[135]

The Bureau received few comments on proposed § 1026.32(b)(1)(v). Several commenters observed that proposed § 1026.32(b)(1)(v), when read together with the Bureau's definition of prepayment penalty for closed-end credit transactions in proposed § 1026.32(b)(8)(i), would have required the inclusion in points and fees of bona fide third-party charges waived by the creditor on the condition that the consumer did not prepay the loan, even though the Bureau's proposal would have permitted certain such charges to be excluded from the definition of prepayment penalty (and, in turn, from points and fees) for HELOCs. Those comments are addressed in the section-by-section analysis of § 1026.32(b)(6)(i) below.

Proposed § 1026.32(b)(1)(v) requiring the inclusion in points and fees of the maximum prepayment fees and penalties which may be charged or collected under the terms of the credit otherwise is being adopted in the 2013 ATR Final Rule substantially as proposed.

32(b)(1)(vi)

Section 1431(c) of the Dodd-Frank Act amended TILA to add new TILA section 103(bb)(4)(F), which requires the inclusion in points and fees of all prepayment fees or penalties that are incurred by the consumer if the loan refinances a previous loan made or currently held by the same creditor or an affiliate of the creditor. The Board's 2011 ATR Proposal proposed to implement this statutory change in new § 226.32(b)(1)(vi) by providing for the inclusion in points and fees of the total prepayment penalty incurred by the consumer if the consumer refinances an existing mortgage loan with the current holder of the existing loan, a servicer acting on behalf of the current holder, or an affiliate of either.[136] Proposed § 1026.32(b)(1)(vi) in the Bureau's 2012 HOEPA Proposal republished the Board's proposed § 226.32(b)(1)(vi), except that it would have replaced a cross-reference to the Board's proposed definition of prepayment penalty for qualified mortgages (*i.e.,* the Board's proposed § 226.43(b)(10)) with a cross-reference to the definition of prepayment penalty for closed-end credit transactions in proposed § 1026.32(b)(8)(i).[137] The Bureau did not receive any comments specifically in response to proposed § 1026.32(b)(1)(vi).

Proposed § 1026.32(b)(1)(vi) is being adopted, substantially as proposed in the 2011 ATR and 2012 HOEPA Proposals, in § 1026.32(b)(1)(vi) in the 2013 ATR Final Rule, with only minor changes for clarity. As noted in the preamble to the 2013 ATR Final Rule, the Bureau believes that it is appropriate for § 1026.32(b)(1)(vi) to apply to the current holder of the existing mortgage loan, the servicer acting on behalf of the current holder, or an affiliate of either (*i.e.,* and not to the creditor that originally made the loan, if that creditor no longer holds the loan). The entities that are listed in § 1026.32(b)(1)(vi) are the entities that would refinance the transaction and, as a practical matter, gain from the prepayment penalties on the previous transaction. Accordingly, the Bureau is invoking its exception and adjustment authority under TILA section 105(a) with respect to the provision. The Bureau believes that adjusting the statutory language will more precisely target the entities in the current market environment that would benefit from refinancing loans with prepayment penalties, more effectively deter loan flipping to collect prepayment penalties, and help preserve consumers' access to safe, affordable credit. It also will lessen the compliance burden on other entities that lack an incentive for loan flipping, such as a creditor that originated the existing loan but no longer holds the loan. For these reasons, the Bureau believes that use of its exception and adjustment authority is necessary and proper under TILA section 105(a) to effectuate the purposes of and facilitate compliance with TILA.

debt cancellation or suspension fees calculated and paid in full on a monthly basis shall not be considered financed by the creditor, and (d)(2) provides that the prohibition does not apply to reasonable credit unemployment insurance that it not paid to the creditor or an affiliate of the creditor.

[134] *See* 76 FR 27390, 27405, 27481 (May 11, 2011).

[135] The Bureau is finalizing proposed § 1026.32(b)(8)(i) as § 1026.32(b)(6)(i) in the 2013 ATR Final Rule. *See* the section-by-section analysis of § 1026.32(b)(6)(i) below.

[136] *See* 76 FR 27390, 27405, 27481 (May 11, 2011).

[137] As already noted, the Bureau is finalizing proposed § 1026.32(b)(8)(i) as § 1026.32(b)(6)(i) in the 2013 ATR Final Rule. *See* the section-by-section analysis for proposed § 1026.32(b)(6)(i), below.

32(b)(2)

Proposed Provisions Not Adopted

As noted in the section-by-section analysis of § 1026.32(b)(1)(ii) above, section 1431(c) of the Dodd-Frank Act amended TILA to require the inclusion in points and fees for high-cost mortgages (and qualified mortgages) of all compensation paid directly or indirectly by a consumer or a creditor to a ''mortgage originator.'' As also noted above, the Board's 2011 ATR Proposal proposed to implement this statutory change in proposed § 226.32(b)(1)(ii) utilizing the term ''loan originator,'' as defined in existing § 1026.36(a)(1), rather than the statutory term ''mortgage originator.'' [138] In turn, the Board proposed new § 226.32(b)(2) to exclude from points and fees compensation paid to certain categories of persons specifically excluded from the definition of ''mortgage originator'' in amended TILA section 103, namely employees of a retailer of manufactured homes under certain circumstances, certain real estate brokers, and servicers.[139] The Bureau's proposed § 1026.32(b)(2) republished the Board's proposed § 226.32(b)(2), with certain terminology changes to reflect the scope of transactions covered by § 1026.32, rather than only § 1026.43, as in the Board's proposal. The Bureau received numerous comments concerning proposed § 1026.32(b)(2). These comments are discussed in the section-by-section analysis of § 1026.32(b)(1)(ii) above. Instead, the Bureau finalizes the definition of points and fees for HELOCs in § 1026.32(b)(2).

Points and Fees for HELOCs

As discussed in the section-by-section analysis of § 1026.32(a) above, TILA section 103(bb)(1)(A) as amended by the Dodd-Frank Act provides that a ''high-cost mortgage'' may include an open-end credit plan secured by a consumer's principal dwelling. Section 1431(c) of the Dodd-Frank Act, in turn, amended TILA by adding new section 103(bb)(5), which specifies how to calculate points and fees for HELOCs. Unlike TILA's pre-existing points and fees definition for closed-end credit transactions, which enumerates six specific categories of items that creditors must include in points and fees, the points and fees provision for HELOCs simply provides that points and fees for open-end credit plans are calculated by adding ''the total points and fees known at or before closing, including the maximum prepayment penalties that may be charged or collected under the terms of the credit transaction, plus the minimum additional fees the consumer would be required to pay to draw down an amount equal to the total credit line.'' Thus, apart from identifying (1) maximum prepayment penalties and (2) fees to draw down an amount equal to the total credit line, the Dodd-Frank Act did not enumerate the specific items that should be included in ''total points and fees'' for HELOCs.

For clarity and to facilitate compliance, the 2012 HOEPA Proposal would have implemented TILA section 103(bb)(5) in § 1026.32(b)(3) (*i.e.,* separately from closed-end points and fees) and would have defined points and fees for HELOCs to include the following categories of charges: (1) Each item required to be included in points and fees for closed-end credit transactions under § 1026.32(b)(1), to the extent applicable in the open-end credit context; (2) certain participation fees that the creditor may impose on a consumer in connection with an open-end credit plan; and (3) the minimum fee the creditor would require the consumer to pay to draw down an amount equal to the total credit line. Each of these items, along with certain modifications adopted in the final rule in response to comments received, is discussed below.

32(b)(2)(i)

Proposed § 1026.32(b)(3)(i) would have provided that all items included in the finance charge under § 1026.4(a) and (b), except interest or the time-price differential, must be included in points and fees for open-end credit plans, to the extent such items are payable at or before account opening. This provision generally would have mirrored proposed § 1026.32(b)(1)(i) for closed-end credit transactions, with the following differences.

First, proposed § 1026.32(b)(3)(i) would have specified that the items included in the finance charge under § 1026.4(a) and (b) must be included in points and fees only if they are payable at or before account opening. Proposed comment 32(b)(3)(i)–1 would have clarified that this provision was intended to address the potential uncertainty that could arise from the fact that certain charges included in the finance charge under § 1026.4(a) and (b) are transaction costs unique to HELOCs that often may not be known at account opening. Proposed comment 32(b)(3)(i)–1 thus would have explained that charges payable after the opening of a HELOC, for example minimum monthly finance charges and service charges based either on account activity or inactivity, need not be included in points and fees for HELOCs, even if they are included in the finance charge under § 1026.4(a) and (b). Transaction fees generally are also not included in points and fees for HELOCs, except as provided in proposed § 1026.32(b)(3)(vi).

Second, in contrast to proposed § 1026.32(b)(1)(i) for closed-end credit transactions, proposed § 1026.32(b)(3)(i) for HELOCs would not have addressed the more inclusive definition of the finance charge proposed in the Bureau's 2012 TILA–RESPA Integration Proposal. Such language was unnecessary in the open-end credit context, because the Bureau's 2012 TILA–RESPA Proposal proposed to adopt the more inclusive finance charge only for closed-end credit transactions.

Third, the Bureau would have omitted from proposed § 1026.32(b)(3)(i) as unnecessary the exclusion from points and fees set forth in amended TILA section 103(bb)(1)(C) for premiums or guaranties for government-provided or certain PMI premiums. The Bureau understands that such insurance products, which are designed to protect creditors originating loans with high loan-to-value ratios, are normally inapplicable in the context of HELOCs.

The Bureau received several comments concerning proposed § 1026.32(b)(3)(i). One industry commenter expressed concern that the different formulation of proposed § 1026.32(b)(1)(i) for closed-end credit transactions and proposed § 1026.32(b)(3)(i) for HELOCs reflected a substantive difference in the approach to points and fees in the closed- and open-end credit contexts. A consumer group commenter urged the Bureau to coordinate the closed- and open-end points and fees definitions to establish a clear and consistent rule in both contexts for when charges must be included in the calculation (*i.e.,* whether points and fees includes any charges in connection with the transaction, charges ''payable'' at or before consummation or account opening, or charges ''known'' at or before consummation or account opening). Finally, the Bureau received one comment suggesting that it incorporate TILA section 103(bb)(1)(C) concerning mortgage insurance premiums into the points and fees definition for HELOCs as a prophylactic measure, even though such products typically are not associated with open-end credit plans.

The Bureau finalizes § 1026.32(b)(3)(i) substantially as proposed, in § 1026.32(b)(2)(i). However, the Bureau

[138] *See* 76 FR 27390, 27402–04, 27481, 27488–89 (May 11, 2011).

[139] *See id.* at 27405–06, 27481.

omits the proposed reference to charges ''payable'' at or before account opening. As discussed in the section-by-section analysis of § 1026.32(b)(1) above, the final rule instead clarifies that each of the charges in the points and fees calculation for HELOCs must be included (as under final § 1026.32(b)(1) for closed-end credit transactions) only if it is ''known'' at or before account opening. The result of this change is consistency between the final rules for points and fees in § 1026.32(b)(1) for closed-end credit and § 1026.32(b)(2) for HELOCs. In addition, as suggested by one commenter, the Bureau is incorporating TILA's provisions concerning mortgage insurance premiums into the definition of points and fees for HELOCs in § 1026.32(b)(2)(i)(B) and (C).

32(b)(2)(i)(B)

The Bureau adopts § 1026.32(b)(2)(i)(B) in the final rule to clarify that government mortgage insurance premiums and guarantees are excluded from points and fees for HELOCs, just as they are from points and fees for closed-end credit transactions. Thus, § 1026.32(b)(2)(i)(B) for HELOCs mirrors § 1026.32(b)(1)(i)(B) as adopted in the 2013 ATR Final Rule for closed-end credit transactions, and comment 32(b)(2)(i)(B) cross-references comment 32(b)(1)(i)(B) for further guidance. The Bureau's 2012 HOEPA Proposal would not have incorporated this provision of TILA into the definition of points and fees for HELOCs. However, upon further consideration, the Bureau believes that even if such mortgage insurance is not common for HELOCs, it is useful to exclude these types of premiums and guarantees from the points and fees definition to accommodate the possibility of this product developing for HELOCs. Additionally, to ease compliance, the Bureau believes it is desirable for the definition of points and fees for closed-end credit transactions and HELOCs to be parallel to the greatest extent practicable. Accordingly, the Bureau interprets TILA section 103(bb)(5) as containing an exclusion for government premiums and guarantees that is parallel to that for closed-end transactions, and is exercising its authority under TILA section 103(bb)(4)(G) to ensure consistent treatment.

32(b)(2)(i)(C)

The Bureau adopts § 1026.32(b)(2)(i)(C) in the final rule to clarify that PMI premiums are excluded from points and fees for HELOCs to the same extent that they are excluded from points and fees for closed-end credit transactions. Thus, § 1026.32(b)(2)(i)(C) for HELOCs mirrors § 1026.32(b)(1)(i)(C) as adopted in the 2013 ATR Final Rule for closed-end credit transactions, and comment 32(b)(2)(i)(C) cross-references comments 32(b)(1)(i)(C)–1 and –2 for further guidance. The Bureau's 2012 HOEPA Proposal would not have incorporated this provision of TILA into the definition of points and fees for HELOCs. However, upon further consideration, the Bureau believes that even if such mortgage insurance is not common for HELOCs, it is useful to include it in the points and fees definition, as noted above. For the same reasons discussed above in connection with government premiums, the Bureau interprets TILA section 103(bb)(5) as containing an exclusion for PMI premiums that is parallel to that for closed-end transactions, and is exercising its authority under TILA section 103(bb)(4)(G) to ensure consistent treatment.

32(b)(2)(i)(D)

As discussed in the section-by-section analysis of § 1026.32(b)(1)(i)(D) above, amended TILA section 103(bb)(1)(A)(ii) excludes from points and fees for high-cost mortgages bona fide third-party charges not retained by the creditor, mortgage originator or an affiliate of either. The proposal would have implemented this provision for both closed- and open-end credit transactions in proposed § 1026.32(b)(5)(i), with a cross-reference to § 1026.36(a)(1) for the definition of loan originator.[140] Proposed § 1026.32(b)(5)(i) would have specified, however, that ''loan originator'' as used in that provision meant a loan originator as that term is defined in § 1026.36(a)(1), notwithstanding § 1026.36(f). The Bureau believed that such a clarification was necessary for HELOCs because originators of open-end credit plans are not, strictly speaking, ''mortgage originators'' as that term is defined in amended TILA section 103. TILA section 103(cc)(2)(A) defines a mortgage originator as a person that performs specific activities with respect to a ''residential mortgage loan,'' and TILA section 103(cc)(5) excludes consumer credit transactions under an open-end credit plan from the definition of residential mortgage loan. Thus, on its face, TILA section 103(bb)(1)(A)(ii) could be read not to exclude from points and fees bona fide third-party charges not retained by an originator of an HELOC. As stated in the proposal, the Bureau believes bona fide third-party charges not retained by a loan originator should be excluded from points and fees whether the originator is originating a closed- or open-end credit transaction. Accordingly, proposed § 1026.32(b)(5)(i) stated that, for purposes of § 1026.32(b)(5)(i), the term ''loan originator'' means a loan originator as that term is defined in § 1026.36(a)(1) (*i.e.,* in general, an originator of any consumer mortgage credit transaction) notwithstanding § 1026.36(f), which otherwise limits the term ''loan originator'' to persons originating closed-end credit transactions.

The Bureau did not receive any comments concerning its proposal to treat originators of HELOCs and originators of closed-end credit transactions equally for purposes of the bona fide third-party charge exclusion from points and fees. Thus, the Bureau finalizes the provision substantially as proposed. However, in light of the fact that the Bureau is adopting the bona fide third-party charge exclusion for closed-end credit transactions in § 1026.32(b)(1)(i)(D) in the 2013 ATR Final Rule (*i.e.,* rather than in § 1026.32(b)(5)(i) for both closed- and open-end credit transactions, as proposed), the Bureau adopts a separate exclusion for HELOCs in § 1026.32(b)(2)(i)(D) of the 2013 HOEPA Final Rule, which mirrors the provision for closed-end credit transactions. Thus, the final rule for HELOCs reflects the fact that mortgage insurance premiums, certain real estate-related charges, and certain credit insurance premiums may sometimes be included in points and fees for HELOCs according to the specific requirements in § 1026.32(b)(2)(i)(C), (ii), and (iii), even if those charges might otherwise have been excluded from points and fees as bona fide third-party charges.

32(b)(2)(i)(E) and (F)

As discussed in the section-by-section analysis of § 1026.32(b)(1)(i)(E) and (F) above, section 1431(d) of the Dodd-Frank Act added new section 103(dd) to TILA, which permits a creditor to exclude from the points and fees calculation for high-cost mortgages, if certain conditions are met, either: (1) Up to two bona fide discount points (TILA section 103(dd)(1)), or (2) up to one bona fide discount point (TILA section 103(dd)(2)). The 2012 HOEPA Proposal would have implemented these bona fide discount point provisions for both closed- and open-end credit transactions in § 1026.32(b)(5)(ii)(A) (exclusion of up

[140] Like the Board's proposed § 226.43(e)(3)(ii), 76 FR 27390, 27465, 27485 (May 11, 2011), the Bureau's proposed § 1026.32(b)(5)(i) would have used the term ''loan originator'' rather than ''mortgage originator'' for consistency within Regulation Z.

to two discount points) and (B) (exclusion of up to one discount point).

Proposed § 1026.32(b)(5)(ii)(A) and (B) are being adopted in the 2013 ATR Final rule as § 1026.32(b)(1)(i)(E) and (F), respectively, as carve-outs in the finance charge prong of closed-end points and fees for closed-end credit transactions. Thus, the Bureau adopts § 1026.32(b)(2)(i)(E) and (F) to provide for the exclusion of up to two bona fide discount points from the points and fees calculation for HELOCs. The Bureau notes that it did not receive any comments specifically concerning the application of the bona fide discount point exclusion to HELOCs. Thus, as adopted, the bona fide discount point exclusions for HELOCs mirror § 1026.32(b)(1)(i)(E) and (F) for closed-end credit transactions, and comments 32(b)(2)(i)(E)–1 and 32(b)(2)(i)(F)–1 cross-reference the commentary to those provisions for additional guidance.

32(b)(2)(ii)

The Bureau's proposal did not include in the calculation of points and fees for HELOCs compensation paid to originators of open-end plans. As discussed above in the section-by-section analysis of § 1026.32(b)(1)(ii), section 1431(c) of the Dodd-Frank Act amended TILA section 103(aa)(4)(B) to require mortgage originator compensation to be included in the existing calculation of points and fees. At the same time, however, section 1401 of the Dodd-Frank Act amended TILA section 103 to define a ''mortgage originator'' as a person who undertakes specified actions with respect to a ''residential mortgage loan application'' or in connection with a ''residential mortgage loan.'' Section 1401 further defined the term ''residential mortgage loan'' to exclude a consumer credit transaction under an open-end credit plan. Given that the Dodd-Frank Act did not specify in amended TILA section 103(bb)(5) concerning HELOCs that compensation paid to originators of open-end credit plans must be included in the calculation of points and fees, the Bureau believed that it was reasonable to conclude that Congress did not intend for such compensation to be included. The Bureau believed that any incentive to evade the closed-end, high-cost mortgage points and fees threshold by structuring a transaction as a HELOC could be addressed through the prohibition in TILA against structuring a transaction as an open-end credit plan to evade HOEPA. *See* TILA section 129(r); § 1026.34(b), below.

The Bureau did not propose to include loan originator compensation in points and fees for HELOCs, but the Bureau noted that amended TILA section 103(bb)(4)(G) grants the Bureau authority to include in points and fees such other charges that it determines to be appropriate. The Bureau thus requested comment on the proposed definition of points and fees for HELOCs, including on whether any additional fees should be included in the definition. In particular, the Bureau requested comment on whether compensation paid to originators should be included in the calculation of points and fees for HELOCs. The Bureau recognized that neither TILA nor Regulation Z currently addresses compensation paid to originators of HELOCs and accordingly requested comment on the operational issues that would be entailed in tracking such compensation for inclusion in the points and fees calculation. The Bureau also requested comment on whether the guidance and examples set forth in proposed § 1026.32(b)(1)(ii) and comments 32(b)(1)(ii)–1 and –2 concerning closed-end loan originator compensation would provide sufficient guidance to creditors calculating such compensation for HELOCs, or whether additional or different guidance would be of assistance in the open-end context.

The Bureau received comments from both industry and consumer groups concerning its proposal to omit loan originator compensation from points and fees for HELOCs. Industry commenters supported the exclusion, with some arguing (as discussed in the section-by-section analysis above) that the exclusion should be extended to closed-end credit transactions. Consumer groups strongly objected to the Bureau's proposed exclusion of compensation to originators of HELOCs on the grounds that it would perpetuate an unwarranted distinction between closed- and open-end credit for purposes of HOEPA coverage, when Congress clearly intended that HELOCs be covered by HOEPA and subject to the same protections as closed-end credit transactions, including the provisions that the Dodd-Frank added to address perceived abuses in loan originator compensation. Consumer groups similarly argued that the Bureau's proposal to rely on the anti-structuring provision in § 1026.34(b) was ''dangerously naïve.'' No commenters provided information concerning the operational burdens that HELOC creditors might face in tracking loan originator compensation, or on whether closed-end guidance for calculating loan originator compensation would be sufficient to provide guidance to HELOC creditors.

As discussed in the section-by-section analysis of § 1026.32(b)(1)(ii), the Bureau is adopting in the 2013 ATR Final Rule a requirement to include in points and fees compensation paid to loan originators, and is providing guidance for determining what types of compensation, and how much compensation, needs to be included. The Bureau is persuaded that requiring loan originator compensation to be included in points and fees for closed-end credit, while exempting it for open-end credit, could lead to undesirable results, such as creditors steering consumers to open-end credit where a closed-end product would be more appropriate. Accordingly, the Bureau is adopting in the final rule a requirement that creditors include compensation paid to originators of open-end credit plans, to the same extent that such compensation is required to be included for closed-end credit transactions.

To provide the public with an additional opportunity to give feedback concerning what further guidance may be needed to calculate and include loan originator compensation for open-end credit in points and fees, the Bureau is soliciting comment on this issue in the concurrent proposal that is being published today.

32(b)(2)(iii)

Proposed § 1026.32(b)(3)(ii) would have provided for the inclusion in points and fees for HELOCs of the real estate-related charges listed in § 1026.4(c)(7) (other than amounts held for future payment of taxes) payable at or before account opening. However, any such charge would have been excluded from points and fees if it is reasonable, the creditor receives no direct or indirect compensation in connection with the charge, and the charge is not paid to an affiliate of the creditor. Proposed § 1026.32(b)(3)(ii) thus would have mirrored proposed § 1026.32(b)(1)(iii) concerning the inclusion of such charges in points and fees for closed-end credit transactions. Proposed comment 32(b)(3)(ii)–1 would have cross-referenced proposed comment 32(b)(1)(iii)–1 for guidance concerning the inclusion in points and fees of items listed in § 1026.4(c)(7). The Bureau did not receive any comments specifically addressing proposed § 1026.32(b)(3)(ii) or its related commentary. The Bureau thus finalizes these provisions as proposed in § 1026.32(b)(2)(iii).

32(b)(2)(iv)

Proposed § 1026.32(b)(3)(iii) would have provided for the inclusion in points and fees for HELOCs of

premiums or other charges payable at or before account opening for any credit life, credit disability, credit unemployment, or credit property insurance, or any other life, accident, health, or loss-of-income insurance, or any payments directly or indirectly for any debt cancellation or suspension agreement or contract. Proposed § 1026.32(b)(3)(iii) thus would have mirrored proposed § 1026.32(b)(1)(iv) concerning the inclusion of such charges for closed-end credit transactions. Proposed comment 32(b)(3)(iii)–1 would have cross-referenced proposed comments 32(b)(1)(iv)–1 and –2 for guidance concerning the inclusion in points and fees of premiums for credit insurance and debt cancellation or suspension coverage.

The Bureau received few comments specifically addressing proposed § 1026.32(b)(3)(iii) or its related commentary. The comments argued that the Bureau should specify, as for closed-end points and fees, that hazard insurance premiums are excluded in all cases for HELOCs because they are payable in a comparable cash transaction. For the reasons discussed in the section-by-section analysis of closed-end points and fees, the Bureau disagrees and notes that the final rule includes hazard insurance premiums unless they are solely for the benefit of the consumer. The Bureau thus finalizes proposed § 1026.32(b)(3)(iii) and its related commentary generally as proposed, as § 1026.32(b)(2)(iv). The Bureau adds a new cross-reference to comment 32(b)(1)(iv)–3, which is being adopted in the 2013 ATR Final Rule. Comment 32(b)(1)(iv)–3 provides clarification concerning treatment of premiums solely for the benefit of the consumer.

32(b)(2)(v)

Proposed § 1026.32(b)(3)(iv) would have provided for the inclusion in points and fees for HELOCs the maximum prepayment penalty that may be charged or collected under the terms of the plan. This provision would have mirrored proposed § 1026.32(b)(1)(v) concerning the inclusion of maximum prepayment penalties for closed-end credit transactions, except that proposed § 1026.32(b)(3)(iv) would have cross-referenced the definition of prepayment penalty provided for HELOCs in proposed § 1026.32(b)(8)(ii).

The Bureau did not receive any comments specifically addressing proposed § 1026.32(b)(3)(iv). The Bureau thus finalizes this provision generally as proposed, as § 1026.32(b)(2)(v). The Bureau replaces the proposed cross-reference to § 1026.32(b)(8)(ii) with a cross-reference to § 1026.32(b)(6)(ii), where the definition of prepayment penalty for HELOCs is being finalized.

32(b)(2)(vi)

As discussed in the section-by-section analysis of § 1026.32(b)(1)(vi) above, section 1431(c) of the Dodd-Frank Act amended TILA to add new TILA section 103(bb)(4)(F) to the general definition of points and fees. TILA section 103(bb)(4)(F) requires the inclusion in points and fees of all prepayment fees or penalties that are incurred by the consumer if the loan refinances a previous loan made or currently held by the same creditor or an affiliate of the creditor. The HOEPA Proposal would not have included this item in its enumerated list of points and fees for HELOCs. However, proposed comment 32(b)(8)–2 would have aligned the treatment of closed-end and open-end credit transactions by clarifying that for HELOCs, the term ''prepayment penalty'' includes a charge imposed if the consumer terminates the plan in connection with obtaining a new loan or plan with the current holder of the existing plan, a servicer acting on behalf of the current holder, or an affiliate of either.

Upon further reflection, the Bureau believes that it is preferable to align the list of items in § 1026.32(b)(2) that should be included in points and fees for HELOCs with that for closed-end credit transactions in § 1026.32(b)(1). As a result, the Bureau is including the guidance contained in proposed comment 32(b)(8)–2 in § 1026.32(b)(2)(vi). Section 1026.32(b)(2)(vi) includes a requirement that the creditor include in points and fees for HELOCs the total prepayment penalty, as defined in § 1026.32(b)(6)(ii), incurred by the consumer if the consumer refinances an existing closed-end credit transaction with an open-end credit plan, or terminates an existing open-end credit plan in connection with obtaining a new open-end credit transaction, with the current holder of the existing plan, a servicer acting on behalf of the current holder, or an affiliate of either.

32(b)(2)(vii)

Proposed § 1026.32(b)(3)(v) would have provided for the inclusion in points and fees for HELOCs of ''any fees charged for participation in an open-end credit plan, as described in § 1026.4(c)(4), whether assessed on an annual or other periodic basis.'' In the proposal, the Bureau noted that the fees described in § 1026.4(c)(4) (*i.e.,* fees charged for participation in a credit plan) are excluded from the finance charge, and thus would not otherwise have been included in points and fees for HELOCs under proposed § 1026.32(b)(3)(i). The Bureau believed, however, that such fees should be included in points and fees for HELOCs because creditors extending HELOCs may commonly impose such fees on consumers as a pre-condition to maintaining access to the plans, and because the Bureau believed that creditors generally could calculate at account opening the amount of participation charges that the consumer would be required to pay to maintain access for the life of the plan.

Proposed comment 32(b)(3)(v)–1 thus would have clarified that § 1026.32(b)(3)(v) requires the inclusion in points and fees of annual fees or other periodic maintenance fees that the consumer must pay to retain access to the open-end credit plan, as described in § 1026.4(c)(4). The comment would have clarified that, for purposes of the points and fees test, a creditor should assume that any annual fee is charged each year for the original term of the plan. Thus, for example, if the terms of a home-equity line of credit with a ten-year term require the consumer to pay an annual fee of $50, the creditor would be required to include $500 in participation fees in its calculation of points and fees.

The Bureau requested comment on the inclusion of fees described in § 1026.4(c)(4) in points and fees for HELOCs, including on whether additional guidance was needed concerning how to calculate such fees for plans that do not have a definite plan length.

The Bureau received several comments from industry concerning the proposed inclusion of participation fees in points and fees for HELOCs. Several commenters expressed concern that the definition would disproportionately impact HELOCs with lower commitment amounts and therefore adversely affect the availability of such products. Commenters also stated that TILA's statutory language did not support the inclusion of participation fees in points and fees if the creditor waives the fees dependent on the consumer's use of the credit plan, such as if the consumer carries an outstanding balance or if the line has been used during the year. Commenters observed that these conditions cannot be known at account opening, thus the amount of participation charge to be included in points and fees over the term of the HELOC cannot be known at account opening. Commenters suggested

various alternatives for including participation fees in points and fees for HELOCs, such as requiring the fees to be included only if they are payable at or before account opening, or requiring them to be included only for the first three years of the account (after which the consumer could close the account without facing a prepayment penalty if the consumer objected to paying the fee). No commenters provided any suggestions for calculating the amount of participation fees to be included in points and fees for a HELOC without a specified account termination date.

The Bureau adopts this provision as § 1026.32(b)(2)(vii) with the limitation that creditors must include only those participation charges that are payable before or at account opening. The Bureau expects that this approach will provide a workable rule for creditors opening HELOCs with participation charges that may be waived depending on a consumer's use of the account, as well as for HELOCs without a specified account termination date.

32(b)(2)(viii)

As noted above, new TILA section 103(bb)(5) specifies, in part, that the calculation of points and fees for HELOCs must include ''the minimum additional fees the consumer would be required to pay to draw down an amount equal to the total credit line.'' The Bureau proposed to implement this requirement in § 1026.32(b)(3)(vi). Specifically, proposed § 1026.32(b)(3)(vi) would have provided for inclusion in the calculation of points and fees for HELOCs any transaction fee, including any minimum fee or per-transaction fee, that would be charged for a draw on the credit line. Proposed § 1026.32(b)(3)(vi) would have clarified that a transaction fee that is assessed when a consumer draws on the credit line must be included in points and fees whether or not the consumer draws the entire credit line. In the proposal, the Bureau noted its belief that any transaction fee that would be charged for a draw on the credit line would include any transaction fee that would be charged to draw down an amount equal to the total credit line.

The Bureau interprets the requirement in amended TILA section 103(bb)(5) to include the ''minimum additional fees'' that will be imposed on the consumer to draw an amount of credit equal to the total credit line as requiring creditors to assume that a consumer will make at least one such draw during the term of the credit plan. The Bureau recognizes that creditors will not know at account opening how many times (if ever) a consumer will draw the entire amount of the credit line. For clarity and ease of compliance, the Bureau interprets the statute to require the creditor to assume one such draw. Proposed comment 32(b)(3)(vi)–1 would have clarified this requirement with an example. Proposed comment 32(b)(3)(vi)–2 would have clarified that, if the terms of the HELOC permit a consumer to draw on the credit line using either a variable- or fixed-rate feature, proposed § 1026.32(b)(3)(vi) requires the creditor to use the terms applicable to the variable-rate feature for determining the transaction fee that must be included in the points and fees calculation.

The Bureau solicited comment on the requirement to include in points and fees for HELOCs the charge assessed for one draw of the total credit line, and on whether additional guidance was needed for HELOCs with a maximum amount per draw. The Bureau did not receive any comments specifically addressing proposed § 1026.32(b)(3)(vi) or its related commentary. The Bureau thus finalizes these provisions as proposed, but renumbers them in the final rule as § 1026.32(b)(2)(viii) and comments 32(b)(2)(viii)–1 and –2.

32(b)(3)

Definition of Bona Fide Discount Point

As discussed in the section-by-section analysis of § 1026.32(b)(2) above, the Bureau proposed to implement the calculation of points and fees for HELOCs in § 1026.32(b)(3). The Bureau is finalizing the calculation of points and fees for HELOCs in § 1026.32(b)(2). Thus, the Bureau is adopting in § 1026.32(b)(3) the definition of bona fide discount point. The Bureau proposed to implement this definition in § 1026.32(b)(5)(ii) in the 2012 HOEPA Proposal.

The Dodd-Frank Act added TILA sections 103(dd)(3) and (4) and 129C(b)(2)(C)(iii) and (iv) to provide the same methodology for high-cost mortgages and qualified mortgages, respectively, for determining whether a discount point is ''bona fide'' and thus excludable from points and fees. Specifically, these sections provide that a discount point is ''bona fide'' if (1) the consumer knowingly pays it for the purpose of reducing, and the point in fact results in a bona fide reduction of, the interest rate or time-price differential applicable to the mortgage, and (2) the amount of the interest rate reduction purchased is reasonably consistent with established industry norms and practices for secondary mortgage market transactions.

Under both the Board's proposed § 226.43(e)(3)(iv) for qualified mortgages and the Bureau's proposed § 1026.32(b)(5)(ii) for high-cost mortgages, a discount point would have been ''bona fide'' if it both (1) reduced the interest rate or time-price differential applicable to transaction based on a calculation that was consistent with established industry practices for determining the amount of reduction in the interest rate or time-price differential appropriate for the amount of discount points paid by the consumer and (2) accounted for the amount of compensation that the creditor could reasonably expect to receive from secondary market investors in return for the transaction. Specifically, proposed § 1026.32(b)(5)(ii)(C) in the 2012 HOEPA Proposal simply would have cross-referenced proposed § 226.43(e)(3)(iv) as set forth in the Board's 2011 ATR Proposal for purposes of determining whether a discount point was ''bona fide'' and excludable from the high-cost mortgage points and fees calculation.[141] The Bureau noted in the 2012 HOEPA Proposal that it expected to provide further clarification concerning the exclusion of bona fide discount points from points and fees for qualified mortgages when it finalized the Board's 2011 ATR Proposal. In the 2012 HOEPA Proposal, the Bureau thus stated that it would coordinate any such clarification across the ATR and HOEPA Final Rules.

The Bureau received several comments concerning its proposed definition of ''bona fide discount point,'' all from industry commenters. The comments generally repeated what commenters had stated in response to the Board's 2011 ATR Proposal. Specifically, commenters stated that the proposed definition was both vague and overly restrictive, and that the secondary market does not create a meaningful benchmark for whether the amount of a given interest rate reduction is ''bona fide.'' Some commenters objected that they were not aware of ''established industry practices'' related to loan pricing and that pricing strategies vary significantly from creditor to creditor. For example, one creditor's ''par rate'' may be higher or lower than another's based on whether the creditor absorbs secondary market costs such as LLPAs and processing fees or passes them on to the consumer. Such factors could impact the creditor's discount point pricing. Certain other commenters requested guidance for how creditors making portfolio loans with discount points could establish that the discount point is ''bona fide,'' given that

[141] *See* 76 FR 27390, 27485 (May 11, 2011).

the proposed test would have been tied to the secondary market.

As discussed at length in the Bureau's 2013 ATR Final Rule, the Bureau is adopting in that rulemaking a definition of ''bona fide discount point'' with certain modifications from what was proposed in the 2011 ATR and 2012 HOEPA Final Rules. In brief, the Bureau is removing the proposed requirement that interest rate reductions take into account secondary market considerations. Instead, as revised, § 1026.32(b)(3) requires only that the calculation of the interest rate reduction be consistent with established industry practices for determining the amount of reduction in the interest rate or time-price differential appropriate for the amount of discount points paid by the consumer. As noted in the 2013 ATR Final Rule, the Bureau finds that removing the secondary market component of the ''bona fide'' discount point definition is necessary and proper under TILA section 105(a) to effectuate the purposes of and facilitate compliance with TILA. In particular, the exception is necessary and proper to permit creditors sufficient flexibility to demonstrate that they are in compliance with the requirement that discount points are bona fide. These same considerations regarding facilitating compliance apply equally in the high-cost mortgage context.

To further assist creditors in the bona fide discount point calculation for high-cost mortgages and qualified mortgages, the Bureau is adopting in the 2013 ATR Final Rule new comment 32(b)(3)–1, which provides examples of methods that a creditor can use to determine whether a discount point is ''bona fide.'' The examples are discussed in further detail in the section-by-section analysis of § 1026.32(b)(4) in the ATR Final Rule.

32(b)(4)

Proposed Provision Not Adopted

Proposed § 1026.32(b)(4) in the 2012 HOEPA Proposal would have excluded from points and fees for HELOCs any charge the creditor waived at or before account opening, unless the creditor could assess the charge after account opening. Proposed comment 32(b)(4)–1 would have provided an example to illustrate the rule. The Bureau received several comments relating to whether and when conditionally-waived closing costs should be required to be included in points and fees through the prepayment penalty prong of the calculation. The Bureau is addressing issues concerning the treatment of conditionally-waived, third-party charges in the definition of prepayment penalty, and therefore is not finalizing proposed § 1026.32(b)(4). Public comments regarding these charges are addressed in the section-by-section analysis of § 1026.32(b)(6) below.

Total Loan Amount for Points and Fees

As noted in the section-by-section analysis of § 1026.32(a)(1)(ii) above, the Bureau's 2012 HOEPA Proposal proposed for organizational purposes to move (1) the existing definition of ''total loan amount'' for closed-end credit transactions from comment 32(a)(1)(ii)–1 to proposed § 1026.32(b)(6)(i), and (2) the examples showing how to calculate the total loan amount for closed-end credit transactions from existing comment 32(a)(1)(ii)–1 to proposed comment 32(b)(6)(i)–1. The Bureau also proposed certain changes to the total loan amount definition and commentary for closed-end credit transactions, as discussed below. Finally, the Bureau proposed to define ''total loan amount'' for HELOCs in proposed § 1026.32(b)(6)(ii). The definition of ''total loan amount'' is being finalized in the 2013 ATR Final Rule. As adopted in that rulemaking, the definitions and accompanying guidance will appear in § 1026.32(b)(4) and comment 32(b)(4)(i)–1. Changes from what the Bureau proposed in its 2012 HOEPA Proposal are discussed below.

32(b)(4)(i)

As noted, the Bureau proposed to move existing comment 32(a)(1)(ii)–1 concerning calculation of the ''total loan amount'' for points and fees to proposed § 1026.32(b)(6)(i) and comment 32(b)(6)(i)–1 and to specify that the calculation applies to closed-end credit transactions. The Bureau also proposed to amend the definition of ''total loan amount'' so that the ''amount financed,'' as calculated pursuant to § 1026.18(b), would no longer be the starting point for the total loan amount calculation. The Bureau proposed this amendment both because the Bureau believed that it would streamline the total loan amount calculation and because the Bureau believed the revisions were sensible in light of the more inclusive definition of the finance charge proposed in the Bureau's 2012 TILA–RESPA Proposal. In the preamble of the HOEPA proposal, the Bureau noted that one effect of the proposed more inclusive finance charge generally could have been to reduce the ''amount financed'' for many transactions. The Bureau thus proposed not to rely on the ''amount financed'' calculation as the starting point for the ''total loan amount'' in HOEPA. The Bureau instead proposed to define ''total loan amount'' as the amount of credit extended at consummation that the consumer is legally obligated to repay, as reflected in the loan contract, less any cost that is both included in points and fees under § 1026.32(b)(1) and financed by the creditor. Proposed comment 32(b)(6)(i)–1 would have provided an example of the Bureau's proposed ''total loan amount'' calculation for closed-end credit transactions.

The Bureau requested comment on the appropriateness of its revised definition of ''total loan amount,'' and particularly on whether additional guidance was needed in light of the prohibition against financing of points and fees for high-cost mortgages. Specifically, the Bureau noted that, under the 2012 HOEPA Proposal, financed points are relevant for two purposes. First, financed points and fees must be excluded from the total loan amount for purposes of determining whether a closed-end credit transaction is covered by HOEPA under the points and fees threshold. Second, if a transaction is a high-cost mortgage through operation of any of the HOEPA triggers, the creditor is prohibited from financing points and fees by, for example, including points and fees in the note amount or financing them through a separate note. *See* the section-by-section analysis of § 1026.34(a)(10) below.

The 2012 HOEPA Proposal noted that, notwithstanding HOEPA's ban on the financing of points and fees for high-cost mortgages, for purposes of determining HOEPA coverage (and thus whether the ban applies) creditors should be required to deduct from the amount of credit extended to the consumer any points and fees that the creditor would finance if the transaction were not subject to HOEPA.[142] In this way, the percentage limit on points and fees for determining HOEPA coverage would be based on the amount of credit extended to the borrower without taking into account any points and fees that would (if permitted) be financed. The preamble to the 2012 HOEPA Proposal provided an example to illustrate how the provisions concerning financed points and fees in proposed §§ 1026.32(b)(6)(i) and 1026.34(a)(10) would have worked together.

The Bureau received numerous comments concerning its proposed amendment to the total loan amount calculation for closed-end credit transactions. The comments, from both industry and consumer groups,

[142] Calculating the total loan amount by deducting financed points and fees from the amount of credit extended to the consumer is consistent with the existing total loan amount calculation in current comment 32(a)(1)(ii)–1.

generally requested that the calculation be clarified prior to its finalization. The Bureau received no comments seeking further guidance or clarification concerning the interaction of the total loan amount calculation and the prohibition against financing of points and fees for high-cost mortgages.

After further consideration, the Bureau has determined not to adopt at this time the proposed revisions to the total loan amount calculation for closed-end credit transactions. The Bureau notes that it likely will revisit this subject when it issues a final rule concerning the proposed more inclusive finance charge. Thus, the Bureau adopts the total loan amount definition for closed-end credit transactions as separately finalized in connection with the 2013 ATR Final Rule. As finalized therein, the total loan amount for a closed-end credit transaction is calculated consistently with existing comment 32(a)(1)(ii)–1, except that the Bureau is adopting certain clarifications to reflect the operation of other, new provisions under TILA. For example, the total loan amount calculation examples, which discuss whether and when to subtract financed points and fees from the amount financed, are revised so that they no longer refer to the financing of credit life insurance, because the financing of most such insurance is prohibited under TILA section 129C(d).

32(b)(4)(ii)

Proposed § 1026.32(b)(6)(ii) in the 2012 HOEPA Proposal would have provided that the ''total loan amount'' for a HELOC is the credit limit for the plan when the account is opened. The Bureau requested comment as to whether additional guidance was needed concerning the ''total loan amount'' for HELOCs. The Bureau received no comments concerning proposed § 1026.32(b)(6)(ii) and finalizes it in this rulemaking, as § 1026.32(b)(4)(ii).

32(b)(5)

The 2012 HOEPA Proposal would have re-numbered existing § 1026.32(b)(2) defining the term ''affiliate'' as § 1026.32(b)(7) for organizational purposes. The Bureau received no comments on this provision. The Bureau finalizes this organizational change in the 2013 ATR Final Rule, by re-numbering existing § 1026.32(b)(2) as § 1026.32(b)(5).

32(b)(6)

HOEPA's Current Approach to Prepayment Penalties

Existing § 1026.32 addresses prepayment penalties in § 1026.32(d)(6) and (7). Existing § 1026.32(d)(6) has implemented TILA section 129(c)(1) by defining the term ''prepayment penalty'' for high-cost mortgages as a penalty for paying all or part of the principal before the date on which the principal is due, including by computing a refund of unearned scheduled interest in a manner less favorable than the actuarial method, as defined by section 933(d) of the Housing and Community Development Act of 1992. Existing § 1026.32(d)(7) has implemented TILA section 129(c)(2) by specifying when a creditor historically has been permitted to impose a prepayment penalty in connection with a high-cost mortgage. Prior to the Dodd-Frank Act, the substantive limitations on prepayment penalties in TILA section 129(c)(1) and (2) were the only statutorily-prescribed limitations on prepayment penalties in TILA, other than certain disclosure requirements set forth in TILA section 128(a)(11) and (12).[143]

The Dodd-Frank Act's Amendments to TILA Relating to Prepayment Penalties

As discussed in the 2012 HOEPA Proposal, sections 1431 and 1432 of the Dodd-Frank Act (high-cost mortgages) and section 1414 of the Dodd-Frank Act (qualified mortgages) amended TILA to further restrict (and often prohibit) prepayment penalties in dwelling-secured credit transactions. The Dodd-Frank Act restricted prepayment penalties in three main ways.

Qualified Mortgages. First, as discussed in the 2013 ATR Final Rule, the Dodd-Frank Act added to TILA new section 129C(c)(1) relating to qualified mortgages, which generally provides that a residential mortgage loan (*i.e.,* in general, a closed-end, dwelling-secured credit transaction) may include a prepayment penalty only if it: (1) Is a qualified mortgage (as the Bureau is defining that term in § 1026.43(e)(2), (e)(4), and (f)), (2) has an APR that cannot increase after consummation, and (3) is not a higher-priced mortgage loan as defined in § 1026.35(a).[144] Under amended TILA section 129C(c)(3), moreover, even loans that meet the statutorily-prescribed criteria just described (*i.e.,* fixed-rate, non-higher-priced qualified mortgages) may not include prepayment penalties that exceed three percent, two percent, and one percent of the amount prepaid during the first, second, and third years following consummation, respectively (or any prepayment penalty after the third year following consummation).[145]

High-Cost Mortgages. Second, as discussed above in the section-by-section analysis of § 1026.32(a)(1)(iii), amended TILA section 103(bb)(1)(A)(iii) provides that any closed- or open-end consumer credit transaction secured by a consumer's principal dwelling (other than a reverse mortgage transaction) with a prepayment penalty in excess of 2 percent of the amount prepaid or payable more than 36 months after consummation or account opening is a high-cost mortgage subject to §§ 1026.32 and 1026.34. Under amended TILA section 129(c)(1), in turn, high-cost mortgages are prohibited from having a prepayment penalty.

Prepayment Penalty Inclusion in Points and Fees. Third, both qualified mortgages and most closed-end credit transactions and HELOCs secured by a consumer's principal dwelling are subject to additional limitations on prepayment penalties through the inclusion of prepayment penalties in the definition of points and fees for both qualified mortgages and high-cost mortgages. *See* the section-by-section analysis of § 1026.32(b)(1)(v)–(vi) and (b)(2)(v)–(vi) above. *See also* the section-by-section analysis of §§ 1026.32(b)(1)(v)–(vi) and .43(e)(3) in the Bureau's 2013 ATR Final Rule (discussing the inclusion of prepayment penalties in the points and fees calculation for qualified mortgages pursuant to TILA section 129C(b)(2)(A)(vii) and noting that most qualified mortgage transactions may not have total points and fees that exceed three percent of the total loan amount).

Taken together, the Dodd-Frank Act's amendments to TILA relating to prepayment penalties mean that most

[143] Existing § 1026.35(b)(2) restricts prepayment penalties for higher-priced mortgage loans in much the same way that existing § 1026.32(d)(6) and (7) restricts such penalties for high-cost mortgages, but § 1026.35(b)(2) was adopted before the specific prohibitions contained in the Dodd-Frank Act were enacted. The Bureau's Escrows Final Rule is removing the restriction in § 1026.35(b)(2), in any event, in light of the broader prepayment penalty regulations being adopted both in this rulemaking and the 2013 ATR Final Rule.

[144] The Bureau's 2013 ATR Final Rule is finalizing the Board's proposed implementation of TILA section 129C(c)(1) in new § 1026.43(g)(1).

[145] The Bureau's 2013 ATR Final Rule is finalizing the Board's proposed implementation of TILA section 129C(c)(3) in new § 1026.43(g)(2), which provides that a prepayment penalty must not apply after the three-year period following consummation, and must not exceed 2 percent of the outstanding loan balance prepaid (during the first two years following consummation) or 1 percent of the outstanding loan balance prepaid (during the third year following consummation).

closed-end, dwelling-secured transactions (1) may provide for a prepayment penalty only if they are fixed-rate, qualified mortgages that are neither high-cost nor higher-priced under §§ 1026.32 and 1026.35; (2) may not, even if permitted to provide for a prepayment penalty, charge the penalty more than three years following consummation or in an amount that exceeds two percent of the amount prepaid;[146] and (3) may be required to limit any penalty even further to comply with the points and fees limitations for qualified mortgages, or to stay below the points and fees threshold for high-cost mortgages. In addition, in the open-end credit context, no HELOC secured by a consumer's principal dwelling may provide for a prepayment penalty more than 3 years following account opening or in an amount that exceeds two percent of the initial credit limit under the plan.

The Board's and the Bureau's Proposals Relating to Prepayment Penalties

In its 2009 Closed-End Proposal, the Board proposed to establish a new § 226.38(a)(5) for disclosure of prepayment penalties for closed-end credit transactions. *See* 74 FR 43232, 43334, 43413 (Aug. 26, 2009). In proposed comment 38(a)(5)–2, the Board stated that examples of prepayment penalties include charges determined by treating the loan balance as outstanding for a period after prepayment in full and applying the interest rate to such ''balance,'' a minimum finance charge in a simple-interest transaction, and charges that a creditor waives unless the consumer prepays the obligation. In addition, the Board's proposed comment 38(a)(5)–3 listed loan guarantee fees and fees imposed for preparing a payoff statement or other documents in connection with the prepayment as examples of charges that are not prepayment penalties. The Board's 2010 Mortgage Proposal included amendments to existing comment 18(k)(1)–1 and proposed comment 38(a)(5)–2 stating that prepayment penalties include ''interest'' charges after prepayment in full even if the charge results from interest accrual amortization used for other payments in the transaction.[147]

The Board's 2011 ATR Proposal proposed to implement the Dodd-Frank Act's prepayment penalty-related amendments to TILA for qualified mortgages by defining ''prepayment penalty'' for most closed-end, dwelling-secured transactions in new § 226.43(b)(10), and by cross-referencing proposed § 226.43(b)(10) in the proposed joint definition of points and fees for qualified and high-cost mortgages in § 226.32(b)(1)(v) and (vi).[148] The definition of prepayment penalty proposed in the Board's 2011 ATR Proposal differed from the Board's prior proposals and current guidance in the following respects: (1) Proposed § 226.43(b)(10) defined prepayment penalty with reference to a payment of ''all or part of'' the principal in a transaction covered by the provision, while § 1026.18(k) and associated commentary and the Board's 2009 Closed-End Proposal and 2010 Mortgage Proposal referred to payment ''in full,'' (2) the examples provided omitted reference to a minimum finance charge and loan guarantee fees,[149] and (3) proposed § 226.43(b)(10) did not incorporate, and the Board's 2011 ATR Proposal did not otherwise address, the language in § 1026.18(k)(2) and associated commentary regarding disclosure of a rebate of a precomputed finance charge, or the language in § 1026.32(b)(6) and associated commentary concerning prepayment penalties for high-cost mortgages.

The Bureau's 2012 TILA–RESPA Proposal drew from the Board's pre-existing proposals concerning the definition of prepayment penalty for closed-end credit transactions, and reconciled their definitions in proposing a definition for closed-end credit disclosures.

The Bureau's 2012 HOEPA Proposal

To provide guidance as to the meaning of ''prepayment penalty'' for closed-end credit transactions subject to § 1026.32 that was consistent with the definition proposed in the Bureau's 2012 TILA–RESPA Proposal, as well as to provide guidance concerning prepayment penalties in the context of HELOCs, the Bureau's 2012 HOEPA Proposal would have established a new § 1026.32(b)(8) to define the term ''prepayment penalty'' for purposes of closed- and open-end credit transactions subject to § 1026.32. Proposed § 1026.32(b)(8)(i) defining ''prepayment penalty'' for closed-end credit transactions is finalized as § 1026.32(b)(6)(i) in the 2013 ATR Final Rule, and proposed § 1026.32(b)(8)(ii) defining the term for HELOCs is finalized as § 1026.32(b)(6)(ii) in this final rule, with certain adjustments from the proposal discussed below.

32(b)(6)(i)

Prepayment Penalty; Closed-End Credit Transactions

Consistent with TILA section 129(c)(1), existing § 1026.32(d)(6), and the Board's proposed § 226.43(b)(10) for qualified mortgages, proposed § 1026.32(b)(8)(i) would have provided that, for a closed-end credit transaction, a ''prepayment penalty'' means a charge imposed for paying all or part of the transaction's principal before the date on which the principal is due. Proposed comment 32(b)(8)–1.i through –1.iv would have given examples of prepayment penalties for closed-end credit transactions, including (among others) (1) a charge determined by treating the loan balance as outstanding for a period of time after prepayment in full and applying the interest rate to such ''balance,'' even if the charge results from interest accrual amortization used for other payments in the transaction under the terms of the loan contract; and (2) a fee, such as an origination or other loan closing cost, that is waived by the creditor on the condition that the consumer does not prepay the loan. Proposed comment

[146] New TILA section 129C(c)(3) limits prepayment penalties for fixed-rate, non-higher-priced qualified mortgages to three percent, two percent, and one percent of the amount prepaid during the first, second, and third years following consummation, respectively. However, amended TILA sections 103(bb)(1)(A)(iii) and 129(c)(1) for high-cost mortgages effectively prohibit prepayment penalties in excess of two percent of the amount prepaid at any time following consummation for most credit transactions secured by a consumer's principal dwelling by providing that HOEPA protections (including a ban on prepayment penalties) apply to credit transactions with prepayment penalties that exceed two percent of the amount prepaid. To comply with both the high-cost mortgage provisions and the qualified mortgage provisions, creditors originating most closed-end transactions secured by a consumer's principal dwelling would need to limit the prepayment penalty on the transaction to (1) no more than two percent of the amount prepaid during the first and second years following consummation, (2) no more than one percent of the amount prepaid during the third year following consummation, and (3) zero thereafter.

[147] *See* 75 FR 58539, 58756, 58781 (Sept. 24, 2010). The preamble to the Board's 2010 Mortgage Proposal explained that the proposed revisions to current Regulation Z commentary and proposed comment 38(a)(5)–2 from the Board's 2009 Closed-End Proposal regarding interest accrual amortization were in response to concerns about the application of prepayment penalties to certain Federal Housing Administration (FHA) and other loans (*i.e.,* when a consumer prepays an FHA loan in full, the consumer must pay interest through the end of the month in which prepayment is made).

[148] *See* 76 FR 27390, 27481–82 (May 11, 2011).

[149] The preamble to the Board's 2011 ATR Proposal addressed why the Board chose to omit these two items. The Board reasoned that a minimum finance charge need not be included as an example of a prepayment penalty because such a charge typically is imposed with open-end, rather than closed-end, transactions. The Board stated that loan guarantee fees are not prepayment penalties because they are not charges imposed for paying all or part of a loan's principal before the date on which the principal is due. *See* 76 FR 27390, 27416 (May 11, 2011).

32(b)(8)–1.i would have provided additional clarification concerning the treatment as prepayment penalties of charges imposed as a result of the interest accrual amortization method used in the transaction.

Proposed comment 32(b)(8)–3.i through –3.ii would have applied to both closed- and open-end credit transactions and would have clarified that a prepayment penalty does not include: (1) Fees imposed for preparing and providing documents when a loan is paid in full, or when a HELOC is terminated, if the fees apply whether or not the loan is prepaid or the plan is terminated prior to the expiration of its term, such as a loan payoff statement, a reconveyance document, or another document releasing the creditor's security interest in the dwelling that secures the loan; or (2) loan guarantee fees.

The Bureau noted that its proposed definition of prepayment penalty in § 1026.32(b)(8)(i) and comments 32(b)(8)–1 and 32(b)(8)–3.i and .ii would have substantially incorporated the definitions of and guidance on prepayment penalties from the Board's 2009 Closed-End Proposal, 2010 Mortgage Proposal, and 2011 ATR Proposal and, as necessary, reconciled their differences. For example, the definitions would have incorporated the language from the Board's 2009 Closed-End Proposal and 2010 Mortgage Proposal (but that was omitted in the Board's 2011 ATR Proposal) listing a minimum finance charge as an example of a prepayment penalty and stating that loan guarantee fees are not prepayment penalties, because similar language is found in longstanding Regulation Z commentary. Based on the differing approaches taken by the Board in its recent mortgage proposals, however, the Bureau's HOEPA proposal sought comment on whether a minimum finance charge should be listed as an example of a prepayment penalty and whether loan guarantee fees should be excluded from the definition of prepayment penalty.

The Bureau's HOEPA proposal noted that it expected to coordinate the definition of prepayment penalty in proposed § 1026.32(b)(8)(i) with the definitions in the Bureau's other pending rulemakings mandated by the Dodd-Frank Act concerning ability-to-repay, TILA–RESPA mortgage disclosure integration, and mortgage servicing. To the extent consistent with consumer protection objectives, the Bureau believed that adopting a consistent definition of ''prepayment penalty'' across its various pending rulemakings affecting closed-end credit would facilitate compliance.

The Bureau received several comments concerning its proposed definition for prepayment penalties in closed-end credit transactions. The comments related to two main aspects of the proposal: (1) The treatment as a prepayment penalty of the assessment of interest for periods after the borrower has paid in full; and (2) the inclusion of all conditionally-waived closing costs in the definition of prepayment penalty for closed-end credit transactions. The Bureau is adopting proposed § 1026.32(b)(8)(i) as § 1026.32(b)(6)(i) in the 2013 ATR Final Rule, with certain changes from the 2012 HOEPA Proposal to address comments received, as discussed below. As adopted in the 2013 ATR Final Rule and as discussed further therein, comments 32(b)(6)–1 and -2 provide examples of payments that are (and are not) prepayment penalties in the case of closed-end credit transactions.

Post-payoff interest charges. Several commenters expressed serious concern about the Bureau's proposal to include in the definition of prepayment penalty for closed-end credit transactions the assessment of interest for periods after the borrower pays in full. Commenters voiced concern about the potential impact of this provision on FHA lending. FHA loans, based on a monthly interest accrual amortization method, are subject to a policy under which interest may accrue and be charged to the consumer for a partial month after a full payoff. Given that FHA loans can be paid off well beyond 36 months (the maximum time period during which a prepayment penalty may be imposed without triggering HOEPA), defining prepayment penalty to include such interest would effectively cause FHA loans to trigger HOEPA unless the FHA changes its policy going forward.[150] Commenters stated that the Bureau should either define prepayment penalties to exclude interest payments that are imposed for the balance of a month in which a consumer repays a mortgage loan in full, or the Bureau should work with FHA prior to the change taking effect to avoid disruption to industry and, in turn, to borrowers.

As discussed in the 2013 ATR Final Rule, the Bureau is not removing or substantively amending comment 32(b)(6)–1.i, which specifies that the practice of charging a consumer interest after the consumer prepays the loan in full is a prepayment penalty. As noted in that rulemaking, the Bureau includes the interest calculation as an example of a prepayment penalty in comment 32(b)(6)–1.i chiefly because such methodology penalizes the consumer by requiring the consumer to pay interest for a period after the loan has been paid in full. The inclusion of this example is also consistent with long-standing Regulation Z commentary accompanying § 1026.18 that requires such charges to be disclosed as prepayment penalties, as well as with Board Regulation Z proposals from 2009 and 2010.[151]

However, with respect to FHA practices relating to monthly interest accrual amortization, the Bureau has consulted extensively with HUD in issuing this final rule as well as the 2013 ATR Final Rule. Based on these consultations, the Bureau understands that HUD must engage in rulemaking to end its practice of imposing interest charges on consumers for the balance of the month in which consumers prepay in full. The Bureau further understands that HUD requires approximately 24 months to complete its rulemaking process. Accordingly, in recognition of the important role that FHA-insured credit plays in the current mortgage market and to facilitate FHA creditors' ability to comply with this aspect of the 2013 HOEPA and ATR Final Rules, the Bureau is using its authority under TILA section 105(a) to provide for optional compliance until January 21, 2015 with § 1026.32(b)(6)(i) and the official interpretation of that provision in comment 32(b)(6)–1.i regarding monthly interest accrual amortization. Specifically, § 1026.32(b)(6)(i) provides that interest charged consistent with the monthly interest accrual amortization method is not a prepayment penalty for FHA loans consummated before January 21, 2015. FHA loans consummated on or after January 21, 2015 must comply with all aspects of the final rule. The Bureau is making this adjustment pursuant to its authority under TILA section 105(a), which provides that the Bureau's regulations may contain such additional requirements, classifications, differentiations, or other provisions, and may provide for such adjustments and exceptions for all or any class of transactions as in the Bureau's judgment are necessary or proper to effectuate the purposes of TILA, prevent

[150] As noted in the Bureau's 2013 ATR Final Rule, it would similarly mean that no future FHA loan could be a qualified mortgage absent a change in the accrual method, due to prepayment penalty limitations on qualified mortgages. In addition, the accrual method would be prohibited for non-qualified mortgages, which are not permitted to have any prepayment penalties.

[151] 74 FR 43232, 43257, 43295, 43390, 43413 (Aug. 26, 2009); 75 FR 58539, 58586 (Sept. 24, 2010).

circumvention or evasion thereof, or facilitate compliance therewith. 15 U.S.C. 1604(a). The Bureau believes it is necessary and proper to make this adjustment to facilitate compliance with TILA and its purposes while mitigating the risk of disruption to the market. For purposes of this rulemaking, the Bureau specifically notes that the inclusion of interest charged consistent with the monthly interest accrual amortization method in the definition of prepayment penalty for purposes of determining whether a transaction has exceeded the high-cost mortgage prepayment penalty or points and fees coverage tests (and, in turn, whether the transaction has violated the prohibition against prepayment penalties for high-cost mortgages) applies only to transactions consummated on or after January 10, 2014; for FHA loans, compliance with this aspect of the definition or prepayment penalties is optional for transactions consummated prior to January 21, 2015.

Conditionally-waived closing costs. Several commenters expressed dissatisfaction with the proposed inclusion of conditionally-waived closing costs as prepayment penalties for closed-end credit transactions. The commenters noted that the 2012 HOEPA Proposal would have excluded such waived closing costs from the definition of prepayment penalty for HELOCs, provided that the costs represented bona fide third-party charges and were recouped only in the case of prepayments occurring within the first 36 months after account opening. As with other aspects of the Proposal that applied different treatment to open- versus closed-end credit, consumer groups argued that waived closing costs should be considered prepayment penalties in all cases. Some industry commenters, on the other hand, argued that all waived closing charges (*i.e.,* not only bona fide third-party charges, and not only such charges that the creditor might recoup during the first three years) should be excluded from the definition of prepayment penalty for both closed- and open-end credit. Other industry commenters requested that the exemption from prepayment penalties for waived third-party charges proposed for HELOCs apply equally to closed-end subordinate-lien loans, because creditors commonly waive third-party fees on those loans as they do for HELOCs. One commenter suggested that the rule be clarified so that a charge, such as taxes, which would not be included in points and fees if the consumer paid it at closing would not be included in points and fees through the prepayment penalty prong if the creditor waived that charge but required it to be repaid if the consumer prepaid the loan or terminated the plan early. Another commenter noted that there is a practice of waiving closing costs on smaller transactions on the condition that the consumer does not prepay within three years of consummation or account opening. This commenter expressed concern that treatment of those costs as prepayment penalties would exceed the two percent HOEPA prepayment penalty trigger, thus unfairly burdening small-dollar-value lending.

The Bureau is also adopting language and adding an example in the 2013 ATR Final Rule to comment 32(b)(6)–1.ii to clarify that, for closed-end credit transactions (as for HELOCs), the term ''prepayment penalty'' does not include conditionally-waived, bona fide third-party closing charges that the creditor may impose on the consumer if the consumer prepays the loan in full within 36 months of consummation.

The Bureau believes that excluding such charges from the definition of prepayment penalty for both closed- and open-end credit is the only practicable way to make the various provisions of HOEPA relating to prepayment penalties and points and fees work sensibly together. In this regard, the Bureau notes that bona fide third-party charges that the consumer pays upfront and that are not paid to or retained by the creditor or its affiliate are excluded from the definition of points and fees for closed-end credit transactions under § 1026.32(b)(1)(i)(D). By contrast, if the same bona fide third-party charges, waived on the condition that the consumer does not prepay the loan in full, are defined as prepayment penalties, then such charges would be required to be included in points and fees (through the prepayment penalty prong) even though the consumer may never actually pay those fees. The Bureau believes that treating a conditionally-waived charge that would not otherwise be included in points and fee as a prepayment penalty would penalize the creditor for the conditional waiver and deter creditors from making these offers to the detriment of consumers. As noted in the 2013 ATR Final Rule, the Bureau recognizes that the creditor receives no profit from imposing or collecting such bona fide third-party charges, and the Bureau believes that treating such charges as a prepayment penalty might very well have the effect of reducing consumer choice without providing any commensurate consumer benefit. In an effort to provide a sensible way to permit a creditor to protect itself from losing money paid at closing to third parties on the consumer's behalf, prior to such time as the creditor can otherwise recoup such costs through the interest rate on the mortgage loan, while balancing consumer protection interests, the Bureau has concluded that such fees should be permissible for a limited time after consummation for closed-end credit transactions.

32(b)(6)(ii)

Prepayment Penalties; HELOCs

Proposed § 1026.32(b)(8)(ii) would have defined the term ''prepayment penalty'' for HELOCs. Specifically, proposed § 1026.32(b)(8)(ii) would have provided that, in connection with an open-end credit plan, the term ''prepayment penalty'' means any fee that may be imposed by the creditor if the consumer terminates the plan prior to the expiration of its term.

Proposed comment 32(b)(8)–2 would have clarified that, for an open-end credit plan, the term ''prepayment penalty'' includes any charge imposed if the consumer terminates the plan prior to the expiration of its term, including, for example, if the consumer terminates the plan in connection with obtaining a new loan or plan with the current holder of the existing plan, a servicer acting on behalf of the current holder, or an affiliate of either. Proposed comment 32(b)(8)–2 would have further clarified that the term ''prepayment penalty'' includes a waived closing cost that must be repaid if the consumer terminates the plan prior to the end of its term, except that the repayment of waived bona fide third-party charges if the consumer terminates the credit plan within 36 months after account opening is not considered a prepayment penalty. The Bureau's proposal provided for a threshold of 36 months to clarify that, if the terms of an open-end credit plan permit a creditor to charge a consumer for waived third-part closing costs when, for example, the consumer terminates the plan in year nine of a ten-year plan, such charges would be considered prepayment penalties and would cause the open-end credit plan to be classified as a high-cost mortgage.[152]

Proposed comment 32(b)(8)–3.iii would have specified that, in the case of

[152] The proposal noted that exclusion of certain conditionally-waived closing costs from the definition of prepayment penalty for HELOCs would have been different from the proposal's definition of prepayment penalty for closed-end credit transactions. As discussed in the section-by-section analysis of § 1026.32(b)(6)(i), the Bureau adopts a consistent treatment of conditionally-waived closing costs for closed-end credit transactions.

an open-end transaction, the term ''prepayment penalty'' does not include fees that the creditor may impose on the consumer to maintain the open-end credit plan, when an event has occurred that otherwise would permit the creditor to terminate and accelerate the plan.[153]

The Bureau received several comments from consumer groups concerning its proposed definition of prepayment penalties for HELOCs. These comments generally urged the Bureau to eliminate distinctions between the treatment of prepayment penalties in the closed- and open-end credit contexts because consumers do not distinguish between closed- and open-end products and thus they should not be treated differently.

The Bureau finalizes § 1026.32(b)(8)(ii) as § 1026.32(b)(6)(ii). For the reasons discussed in the section-by-section analysis of § 1026.32(b)(6)(i) above, the Bureau has determined to exclude conditionally-waived, bona fide third-party closing costs from the definition of prepayment penalty for closed-end credit transactions where the terms of the transaction provide that the creditor may recoup those costs from the consumer if the consumer prepays the transaction in full sooner than 36 months after consummation. With this change, the Bureau believes there is parity between closed- and open-end credit transactions for prepayment penalties.

32(c) Disclosures

TILA section 129(a) requires additional disclosures for high-cost mortgages, and these requirements are implemented in § 1026.32(c). The Bureau proposed to amend § 1026.32(c) to provide clarification and further guidance on the application of these disclosure requirements to open-end credit plans.

The Bureau proposed comment 32(c)(2)–1 to clarify how to disclose the annual percentage rate for an open-end high-cost mortgage. Specifically, proposed comment 32(c)(2)–1 would have clarified that creditors must comply with § 1026.6(a)(1), which sets forth the general requirements for determination and disclosure of finance charges associated with open-end credit plans. In addition, the proposed comment would have stated that if the transaction offers a fixed-rate for a period of time, such as a discounted initial interest rate, § 1026.32(c)(2) requires a creditor to disclose the annual percentage rate of the fixed-rate discounted initial interest rate, and the rate that would apply when the feature expires.

The proposed rule would have made clarifications to § 1026.32(c)(3), which requires disclosure of the regular payment and the amount of any balloon payment. Balloon payments generally are no longer permitted for high-cost mortgages, except in certain narrow circumstances, as discussed below. Proposed § 1026.32(c)(3)(i) would have incorporated the requirement in current § 1026.32(c)(3) for closed-end credit transactions and clarified that the balloon payment disclosure is required to the extent a balloon payment is specifically permitted under § 1026.32(d)(1).

For open-end credit plans, a creditor may not be able to provide a disclosure on the ''regular'' payment applicable to the plan because the regular monthly (or other periodic) payment will depend on factors that will not be known at the time the disclosure is required, such as the amount of the extension(s) of credit on the line and the rate applicable at the time of the draw or the time of the payment. To facilitate compliance and to provide consumers with meaningful disclosures, the Bureau proposed § 1026.32(c)(3)(ii) to require creditors to disclose an example of a minimum periodic payment for open-end high-cost mortgages. Accordingly, proposed § 1026.32(c)(3)(ii)(A) would have provided that, for open-end credit plans, a creditor must disclose payment examples showing the first minimum periodic payment for the draw period and, if applicable, any repayment period and the balance outstanding at the beginning of any repayment period. Furthermore, the proposal would have required this example to be based on the following assumptions: (1) The consumer borrows the full credit line, as disclosed pursuant to § 1026.32(c)(5)(ii) at account opening and does not obtain any additional extensions of credit; (2) the consumer makes only minimum periodic payments during the draw period and any repayment period; and (3) the annual percentage rate used to calculate the sample payments will remain the same during the draw period and any repayment period. Proposed § 1026.32(c)(3)(ii)(A)(3) further would have required that the creditor provide the minimum periodic payment example based on the annual percentage rate for the plan, as described in § 1026.32(c)(2), except that if an introductory annual percentage rate applies, the creditor must use the rate that would otherwise apply to the plan after the introductory rate expires.

As discussed in detail below, the Bureau proposed § 1026.32(d)(1)(iii) to provide an exemption to the prohibition on balloon payments for certain open-end credit plans. Accordingly, to the extent permitted under § 1026.32(d)(1), proposed § 1026.32(c)(3)(ii)(B) would have required disclosure of that fact and the amount of the balloon payment based on the assumptions described in § 1026.32(c)(3)(ii)(A).

To reduce potential consumer confusion, proposed § 1026.32(c)(3)(ii)(C) would have required that a creditor provide a statement explaining the assumptions upon which the § 1026.32(c)(3)(ii)(A) payment examples are based. Furthermore, for the same reason, proposed § 1026.32(c)(3)(ii)(D) would have required a statement that the examples are not the consumer's actual payments and that the consumer's actual periodic payments will depend on the amount the consumer has borrowed and interest rate applicable to that period. The Bureau believes that without such statements, consumers could misunderstand the minimum payment examples.

The Bureau solicited comment on these proposed statements and whether other language would be appropriate and beneficial to consumer. The Bureau did not receive any comments addressing these issues. Accordingly, the Bureau is adopting § 1026.32(c)(3) as proposed.

The Bureau also proposed to revise comment 32(c)(3)–1 to reflect the expanded statutory restriction on balloon payments and to clarify that to the extent a balloon payment is permitted under § 1026.32(d)(1), the balloon payment must be disclosed under § 1026.32(c)(3)(i). In addition, the Bureau proposed to renumber current comment 32(c)(3)–1 as proposed comment 32(c)(3)(i)–1 for organizational purposes. The Bureau did not receive any comments addressing revised comment 32(c)(3)–1, and accordingly is adopting comment 32(c)(3)(i)–1 as proposed, with a minor revision for consistency with Regulation Z terminology.

In order to provide additional guidance on the application of § 1026.32(c)(4) to open-end credit plans, the Bureau proposed to revise comment 32(c)(4)–1. For an open-end credit plan, comment 32(c)(4)–1 would have provided that the disclosure of the maximum monthly payment, as required under § 1026.32(c)(4), must be

[153] The proposal noted that the exclusion from prepayment penalties of fees that a creditor may charge in a HELOC may impose in lieu of terminating and accelerating a plan is consistent with the exclusion of such fees as prepayment penalties required to be disclosed to the consumer as proposed in the Board's 2009 Open-End Proposal. *See* 74 FR 43428, 43481 (Aug. 26, 2009).

based on the following assumptions: (1) The consumer borrows the full credit line at account opening with no additional extensions of credit; (2) the consumer makes only minimum periodic payments during the draw period and any repayment period; and (3) the maximum annual percentage rate that may apply under the payment plan, as required by § 1026.30, applies to the plan at account opening. Although actual payments on the plan may depend on various factors, such as the amount of the draw and the rate applicable at that time, the Bureau believes this approach is consistent with existing guidance to calculate the ''worst-case'' payment example. The Bureau received no comments on this aspect of the proposal, and accordingly is adopting comment 32(c)(4)–1 as proposed.

The Bureau proposed to amend § 1026.32(c)(5) to clarify the disclosure requirements for open-end credit plans. In the proposal, the Bureau noted that the amount borrowed can be ascertained in a closed-end credit transaction but typically is not known at account opening for an open-end credit plan. Specifically, proposed § 1026.32(c)(5)(ii) would have provided that for open-end transactions, a creditor must disclose the credit limit applicable to the plan. Because HELOCs are open-end (revolving) lines of credit, the amount borrowed depends on the amount drawn on the plan at any time. Thus, the Bureau believes that disclosing the credit limit is a more appropriate and meaningful disclosure to the consumer than the total amount borrowed.

The Bureau also proposed technical revisions to the existing requirements for closed-end credit transactions under § 1026.32(c)(5) and to the guidance under comment 32(c)(5)–1. Upon further consideration of these provisions, the Bureau recognizes that the prohibition of financing points and fees in final § 1026.34(a)(10) will prohibit the financing of any points and fees, as defined in § 1026.32(b)(1) and (2) for all high-cost mortgages. This prohibition thus includes the financing of optional credit insurance or debt cancellation coverage described in existing § 1026.32(c)(5), as well as ''premiums or other charges for any credit life, credit disability, credit unemployment, or credit property insurance, or any other life, accident, health, or loss-of-income insurance for which the creditor is the beneficiary, as well as any payments directly or indirectly for any debt cancellation or suspension agreement or contract'' as described in existing comment 32(c)(5)–1. Accordingly, the disclosure for high-cost mortgages required by § 1026.32(c)(5) should not include premiums or other charges for debt cancellation coverage or other charges that are included in the calculation of points and fees, and thereby prohibited from being financed under § 1026.34(a)(10). Section 34(a)(10) does not prohibit, however, the financing of certain bona fide third-party charges that are not considered ''points and fees,'' such as fees charged by a third-party counselor in connection with the consumer's receipt of pre-loan counseling under § 1025.34(a)(5). Accordingly, the Bureau is adopting § 1026.32(c)(5) with revisions for clarification and consistency with final §§ 1026.32(b)(2) and 1026.34(a)(10), and eliminating comment 32(c)(5)–1.

32(d) Limitations

32(d)(1)

The Dodd-Frank Act amended the restrictions on balloon payments under TILA section 129(e). Specifically, amended TILA section 129(e) provides that no high-cost mortgage may contain a scheduled payment that is more than twice as large as the average of earlier scheduled payments, except when the payment schedule is adjusted to the seasonal or irregular income of the consumer.

Definition of Balloon Payment

The Bureau proposed two alternatives in proposed § 1026.32(d)(1)(i) to define balloon payments for purposes of implementing HOEPA's new restrictions on these payments. Under Alternative 1, proposed § 1026.32(d)(1)(i) would have incorporated the statutory language and defined ''balloon payment'' as a scheduled payment that is more than twice as large as the average of regular periodic payments. Under Alternative 2, the rule would have mirrored Regulation Z's existing definition of ''balloon payment'' in § 1026.18(s)(5)(i). Accordingly, proposed § 1026.32(d)(1)(i) would have provided that a balloon payment is ''a payment schedule with a payment that is more than two times a regular periodic payment.'' This definition is similar to the statutory definition under the Dodd-Frank Act, except that it uses as its benchmark any regular periodic payment, rather than the average of earlier scheduled payments.

The Bureau noted in the proposal that, in its view, Alternative 2 would better protect consumers and their interests, but solicited comment on both alternatives. As stated in the proposal, because the existing regulatory definition is narrower than the statutory definition, the Bureau believes that a payment that is twice any one regular periodic payment would be equal to or less than a payment that is twice the average of earlier scheduled payments. The Bureau noted that the range of scheduled payment amounts under Alternative 2 is more limited and defined. For example, if the regular periodic payment on a high-cost mortgage is $200, a payment of greater than $400 would constitute a balloon payment. Under Alternative 1, however, the balloon payment amount could be greater than $400 if, for example, the regular periodic payments were increased by $100 each year. Under Alternative 1, the amount constituting a balloon payment could increase with the incremental increase of the average of earlier scheduled payments. Under either alternative, a high-cost mortgage generally must provide for fully amortizing payments.

The Bureau solicited comment on whether the difference in wording between the statutory definition and the existing regulatory definition, as a practical matter, would yield a significant difference in what constitutes a ''balloon payment'' in the high-cost mortgage context. The Bureau did not receive any comments that persuasively suggested Alternative 1 was preferable to Alternative 2.

The Bureau is adopting Alternative 2 as proposed, pursuant to its authority under TILA section 129(p)(1). TILA section 129(p)(1) allows the Bureau to exempt specific mortgage products or categories of mortgages from certain prohibitions under TILA section 129 if the Bureau finds that the exemption is in the interest of the borrowing public and will apply only to products that maintain and strengthen homeownership and equity protection. The Bureau believes that under Alternative 2, consumers would have a better understanding of the highest possible regular periodic payment in a repayment schedule and may experience less ''payment shock'' as a result. Therefore, the Bureau believes that Alternative 2 would better protect consumers and be in their interest. In addition, the Bureau believes that the definition of balloon payment under Alternative 2 would facilitate and simplify compliance by providing creditors with a single definition within Regulation Z and alleviating the need to average earlier scheduled payments. The Bureau notes that a similar adjustment is being adopted in the 2013 ATR Final Rule and was proposed in the 2012 TILA–RESPA Proposal.

The Bureau also adopts proposed comment 32(d)(1)(i)–1, which provides

further guidance on the application of § 1026.32(d)(1)(i) under Alternative 2. Specifically, the comment clarifies that for purposes of open-end transactions, the term ''regular periodic payment'' or ''periodic payment'' means the required minimum periodic payment.

In addition, the Bureau is finalizing proposed § 1026.32(d)(1)(iii) with some changes for clarification purposes. Proposed § 1026.32(d)(1)(i) would have been applicable to open-end credit plans. However, for an open-end credit plan that has both a draw period and a repayment period during which no further draws may be taken—a structure the Bureau believes is common for open-end plans—proposed § 1026.32(d)(1)(iii) would have made the limitations of§ 1026.32(d)(1)(i) applicable only to the repayment period. Given that § 1026.32(d)(1)(i) defines a balloon payment as any payment that is more than twice the regular periodic payment, any open-end credit plan that converts from smaller interest-only payments to larger fully amortizing payments could be considered a balloon payment if the post-conversion payment is more than twice the interest-only payment during the draw period. As stated in the 2012 HOEPA Proposal, the purpose of the proposed exclusion of the draw period from the balloon limitation for this type of open-end plan was to provide creditors with flexibility to offer products with beneficial payment features.

The Bureau is adopting proposed § 1026.32(d)(1)(iii) with revisions to clarify that the exception to § 1026.32(d)(1)(i) applies to any adjustment in the regular periodic payment that results solely from the credit plan's transition from the draw period to the repayment period. The Bureau believes this revision alleviates any concern that proposed § 1026.32(d)(1)(iii) would have allowed balloon payments during the draw period in other situations. The Bureau is also adding new comment 32(d)(1)–2 to provide further guidance on how the balloon payment restriction applies to open-end credit plans with both a draw and repayment period, including a clarification that the limitation in § 1026.32(d)(1)(i) does not apply to any increases in regular periodic payments that result from the initial draw or additional draws on the credit line during the draw period. Finally, the Bureau is renumbering proposed comment 32(d)(1)–2 to comment 32(d)(1)–3.

''Bridge'' Loans

As previously noted, the Bureau proposed to revise § 1026.32(d)(1)(ii) consistent with amended TILA section 129(e). Accordingly, proposed § 1026.32(d)(1)(ii) would have provided an exemption to the balloon payment restrictions under § 1026.32(d)(1)(i) only if the payment schedule is adjusted to the seasonal or irregular income of the consumer. The proposal would have removed an exemption from current § 1026.32(d)(1)(ii) to the restrictions on balloon payments for loans with maturity of less than one year, if the purpose of the loan is a ''bridge'' loan connected with the acquisition or construction of a dwelling intended to become the consumer's principal dwelling.

The Bureau received several comments from industry groups and banks that supported retaining the exemption for bridge loans in the final rule, and no comments that voiced opposition. Industry groups and some community banks pointed out that bridge loans are currently covered by HOEPA, and an exemption to the pre-Dodd Frank Act restrictions on balloon payments was in place to prevent unnecessarily restricting access to short-term bridge loans for consumers. In particular, commenters stated that, because all short-term bridge loans are structured with balloon payments, the effect of this removal would be to prohibit any bridge loan that is classified as a high-cost mortgage. Some commenters suggested that the Bureau retain the existing exemption for temporary or bridge loans of less than 12 months as exists in current § 1026.32(d)(1)(ii), while one commenter suggested that the Bureau provide an exemption for temporary bridge loans of 12 months or less.

The Bureau agrees with these commenters that the proposed rule would have unnecessarily banned any short term bridge loans covered by HOEPA. Accordingly, final § 1026.32(d)(1)(ii) retains an exemption to the restriction on balloon payments for short-term bridge loans made in connection with the acquisition of a new dwelling. In addition, because it is the Bureau's understanding that temporary or short-term ''bridge'' loans are commonly structured as 12-month balloons, the Bureau is adopting the commenter's suggestion of bridge loans of terms of 12 months or less.

The Bureau is retaining this exemption as modified pursuant to its authority under TILA section 129(p), which grants the Bureau authority to exempt specific mortgage products or categories from any or all of the prohibitions specified in TILA section 129(c) through (i) if the Bureau finds that the exemption is in the interest of the borrowing public and will apply only to products that maintain and strengthen homeownership and equity protections. The Bureau believes this approach is in the interest of the borrowing public and will strengthen homeownership and equity protection, because it is consistent with the historical and current treatment of bridge loans under HOEPA and will not unduly restrict access to temporary bridge financing for consumers. The Bureau further believes that improving access to short-term bridge financing will strengthen homeownership and equity protection by better allowing homeowners who need to sell a current residence in order to purchase a new one access to short-term financing to do so. Finally, the Bureau believes that adopting an exemption for short-term bridge loans of 12 months or less, as opposed to the current exemption for short-term bridge loans of less than 12 months, is also in the interest of the borrowing public because it will remove an unnecessary barrier to short-term financing in its usual 12-month form, at negligible if any cost to consumer protection. The Bureau does not believe that permitting a term of 12 months or less, as opposed to 11 months and 30 days or less, presents an increased risk of abuse to consumers. In addition, permitting balloons for bridge loans with a term of 12 months or less is consistent with the 2013 ATR Final Rule and 2013 Escrows Final Rule.

Balloon Payment Restrictions for Creditors in Rural or Underserved Areas

As previously noted, proposed § 1026.32(d)(1)(ii) would have provided an exemption to the balloon payment restrictions under § 1026.32(d)(1)(i) only if the payment schedule is adjusted to the seasonal or irregular income of the consumer. The Bureau did not propose different treatment for loans made by creditors in rural or underserved areas.

A significant number of industry commenters, especially community banks, objected generally to the balloon payment restriction. These commenters expressed concerns that the 2012 HOEPA Proposal would have prohibited them from making balloon loans that fall within the new HOEPA thresholds, which may have a significant adverse effect on their businesses given that the thresholds for high-cost mortgages are being expanded by the statute. These commenters argued that balloon loans are important to serve the needs of their customers, especially in rural areas, and

banks in these areas use balloon loans to manage their risks and safety and soundness concerns. Commenters asked for various types of relief, including that the prohibition be lifted entirely; that community banks be exempt from the prohibition if the balloon loan is held in portfolio; or that balloon payments be permitted so long as they are only for a final payment.

The Bureau notes that it is including an exemption to the balloon payment restrictions on qualified mortgages for certain loans made by creditors in ''rural'' or ''underserved'' areas in the 2013 ATR Final Rule. As more fully explained in that rule, the Bureau is allowing for certain qualified mortgages to contain balloon payments provided that (1) The loan meets all of the criteria for a qualified mortgage, with certain exceptions; (2) the creditor makes a determination that the consumer is able to make all scheduled payments, except the balloon payment, out of income or assets other than the collateral; (3) the loan is underwritten based on a payment schedule that fully amortizes the loan over a period of not more than 30 years and takes into account all applicable mortgage-related obligations; (4) the loan is not originated in conjunction with a forward commitment and is held in portfolio for at least three years; and (5) the creditor meets prescribed qualifications. *See* §§ 1026.43(f)(1)(i)–(vi) and 1026.43(f)(2). Those qualifications are that the creditor: (1) Operates predominantly in rural or underserved areas; (2) together with all affiliates, has total annual residential mortgage loan originations that do not exceed 500 first-lien covered transactions per year; (3) retains the balloon payment loans in portfolio; and (4) has less than $2 billion in assets. *See* §§ 1026.43(f)(1)(vi) and 1026.35(b)(2)(iii)(A), (B), (C).[154]

The Bureau agrees with commenters that allowing creditors in certain rural or underserved areas to extend high-cost mortgages with balloon payments could benefit consumers by expanding access to credit in these areas, and also would facilitate compliance for creditors who make these loans. The Bureau thus believes that balloon payments should not be prohibited for high-cost mortgages in rural or underserved areas, provided the creditor meets certain criteria that balance the need for access to credit with appropriate consumer protections. In the Bureau's view, the 2013 ATR Final Rule provides an appropriate framework for determining when a high-cost mortgage may be permitted to contain a balloon payment. Further, allowing creditors who make high-cost mortgages in rural or underserved areas to originate loans with balloon payments if they satisfy the same criteria promotes consistency between the 2013 HOEPA Final Rule and the 2013 ATR Final Rule, and thereby facilitates compliance for creditors who operate in these areas. Thus, as adopted, § 1026.32(d)(1) grants a limited exemption from the balloon payment prohibition for creditors that make high-cost mortgages with balloon payments, but that also meet the conditions set forth in §§ 1026.43(f)(1)(i) through (vi) and 1026.43(f)(2), as adopted by the 2013 ATR Final Rule.

The Bureau is providing this exemption pursuant to its authority under TILA section 129(p)(1), which grants it authority to exempt specific mortgage products or categories from any or all of the prohibitions specified in TILA section 129(c) through (i) if the Bureau finds that the exemption is in the interest of the borrowing public and will apply only to products that maintain and strengthen homeownership and equity protections. The Bureau believes the balloon payment exemption for high-cost mortgages is in the interest of the borrowing public and will strengthen homeownership and equity protection. Allowing greater access to credit in rural or underserved areas will help those consumers who may be able to obtain credit only from a limited number of creditors obtain mortgages. Further, it will do so in a manner that balances consumer protections with access to credit. In the Bureau's view, concerns about potentially abusive practices that may accompany balloon payments will be curtailed by the additional requirements set forth in §§ 1026.43(f)(1)(i) through (vi). Creditors who make these high-cost mortgages will be required to verify that the loans also satisfy a number of additional criteria, including some specific criteria required for qualified mortgages. Further, as fully discussed in the 2013 ATR Final Rule, creditors that make balloon high-cost mortgages under this exception will be required to hold the high-cost mortgages in portfolio for a specified time, which the Bureau believes also decreases the risk of abusive lending practices. Accordingly, for these reasons and for the purpose of consistency between the two rulemakings, the Bureau is amending the final rule to include an exemption to the § 1026.32(d)(1) balloon restriction for high-cost mortgages where the creditor satisfies the conditions set forth in §§ 1026.43(f)(1)(i) through (vi) and 1026.43(f)(2).

32(d)(6) and (7) Prepayment Penalties

As discussed in the section-by-section analysis of § 1026.32(b)(6) above, prior to the Dodd-Frank Act, TILA permitted prepayment penalties for high-cost mortgages in certain circumstances. In particular, under TILA section 129(c)(2), which historically has been implemented in § 1026.32(d)(7), prior to the Dodd-Frank Act a high-cost mortgage could provide for a prepayment penalty so long as the penalty was otherwise permitted by law and, under the terms of the loan, the penalty would not apply: (1) To a prepayment made more than 24 months after consummation, (2) if the source of the prepayment was a refinancing of the current mortgage by the creditor or an affiliate of the creditor, (3) if the consumer's debt-to-income ratio exceeded fifty percent, or (4) if the amount of the periodic payment of principal or interest (or both) could change during the first four years after consummation of the loan.

Section 1432(a) of the Dodd-Frank Act repealed TILA section 129(c)(2). Thus, prepayment penalties are no longer permitted for high-cost mortgages. The proposal would have implemented this change consistent with the statute by removing and reserving existing § 1026.32(d)(7) and comments 32(d)(7)(iii)–1 through –3 and 32(d)(7)(iv)–1 and –2. The proposal also would have amended existing § 1026.32(d)(6) to clarify that prepayment penalties are a prohibited term for high-cost mortgages. As discussed in the section-by-section analysis of § 1026.32(b)(6)(i) above, the proposal would have retained in proposed § 1026.32(b)(8)(i) and proposed comment 32(b)(8)–1.iv the definition of prepayment penalty contained in existing § 1026.32(d)(6) and comment 32(d)(6)–1.

The Bureau received few comments concerning its proposal to implement the Dodd-Frank Act provisions banning prepayment penalties for high-cost mortgages. One commenter objected as a general matter to the Dodd-Frank Act's treatment of prepayment penalties for purposes of both qualified mortgages and high-cost mortgages. The Bureau does not find these comments persuasive, for the reasons discussed above in connection with § 1026.32(a)(1)(iii), and the Bureau finalizes § 1026.32(d)(6) and (7) as proposed.

[154] The 2013 Escrows Final Rule defines the terms ''rural'' and ''underserved'' for purposes of § 1026.32(d)(1). *See* § 1026.35(b)(iv).

32(d)(8) Acceleration of Debt

The Bureau proposed a new § 1026.32(d)(8) to implement the prohibition in new section 129(l) of TILA added by section 1433(a) of the Dodd-Frank Act. New section 129(l) of TILA prohibits a high-cost mortgage from containing a provision which permits the creditor to accelerate the loan debt, except when repayment has been accelerated: (1) In response to a default in payment; (2) pursuant to a due-on-sale provision; or (3) pursuant to a material violation of some other provision of the loan document unrelated to payment schedule.

Proposed § 1026.32(d)(8) would have replaced current § 1026.32(d)(8), which similarly prohibits due-on-demand clauses for high-cost mortgage except (1) In cases of fraud or material misrepresentation in connection with the loan; (2) a consumer's failure to meet the repayment terms of the loan agreement for any outstanding balance; or (3) a consumer's action or inaction that adversely affects the creditor's security for the loan or any right of the creditor in such security.

Proposed § 1026.32(d)(8) would have prohibited an acceleration feature in the loan or open-end credit agreement for a high-cost mortgage unless there is a default in payment under the agreement, the acceleration is pursuant to a due-on-sale clause, or there is a material violation of a provision of the agreement unrelated to the payment schedule. The Bureau also proposed comments to provide additional clarification and examples of when acceleration under proposed § 1026.32(d)(8) would be permitted. The Bureau sought comment from the public on these aspects of the proposal, and in particular sought possible additional examples where a consumer's material violation of the loan or open-end credit agreement may or may not warrant acceleration of the debt.

The Bureau received two public comments from industry in response to this request, which generally requested additional guidance on the term ''material violation of the loan agreement,'' and questioned whether the proposed rule would permit acceleration in circumstances other than failure to pay property taxes that may materially impair the creditor's security interest, such as the examples that exist in the commentary to current § 1026.32(d)(8). These commenters also suggested some additional examples of actions undertaken by the consumer that they believe could result in prior lien to a first mortgage being filed against the property in ''material violation'' of a loan term. These examples included failure to pay property taxes; failure to pay condominium fees, homeowner association dues or assessments, or utilities; and default on another lien on the subject property. The commenters also objected to the proposal's removal of several of the existing comments to current § 1026.32(d)(8)(iii), on the ground that acceleration is justified in those situations, and is currently permitted. Specifically, the commenters objected to the removal of language in comment 32(d)(8)(iii)–2.i.E providing that a creditor may terminate and accelerate a high-cost mortgage in some instances if the consumer obligated on the credit dies. The commenters also objected to the proposal's removal of an example in comment 32(d)(8)(iii)–2.i F providing that a creditor may terminate and accelerate a high-cost mortgage if the property is taken by eminent domain.

In the Bureau's view, section 129(l) essentially codified the substance of current § 1026.32(d)(8). The changes the Bureau proposed to § 1026.32(d)(8) and its commentary were primarily for clarity and organizational purposes. Upon further consideration and in light of the comments regarding the potential impact of removing certain examples, the Bureau has decided to implement a final rule and commentary that closely follow the current § 1026.32(d)(8) and commentary. The Bureau agrees that acceleration should not be deemed impermissible under Regulation Z in situations where it is currently permitted, and is including the examples set forth in current comments 32(d)(8)(iii)–2.i.E and F the commentary to the final rule. The Bureau believes these revisions adequately and appropriately address industry's comments by clarifying that acceleration may be permitted in certain circumstances where the creditor's security interest is materially and adversely affected, such as when an action or inaction by the consumer results in a prior lien being filed against the property, or the property is taken by eminent domain.

The Bureau declines to include the various other examples provided by industry commenters in the commentary. The Bureau notes that the examples set forth in comment 32(d)(8)(iii)–2.i.A through G serve only as illustrations of instances where acceleration may be deemed permissible when the action or inaction by the consumer impairs the creditor's security interest. These circumstances may, but do not always, adversely affect the creditor's security interest, and the list of examples is not all-inclusive. While the Bureau agrees with industry commenters that other actions or inactions that may result in a prior lien being filed against the property could materially impair the creditor's security interest, the Bureau does not believe the examples provided, such as failure to pay homeowner association dues or utilities, are likely to result in such an impairment in most circumstances. The Bureau thus declines to include these specific examples in the commentary to § 1026.32(d)(8).

In addition, the Bureau is adding comment 32(d)(8)(i)–1 to provide further guidance regarding acceleration of a loan for fraud or material misrepresentation, consistent with comment 40(f)(2)(i)–1 (concerning requirements for home equity plans). The Bureau believes that this guidance will be equally helpful to creditors seeking to accelerate a high-cost mortgage. Finally, the Bureau has made minor changes for clarification and in light of the expansion of the coverage of HOEPA to include open-end credit.

Section 1026.34 Prohibited Acts or Practices in Connection With High-Cost Mortgages 34(a) Prohibited Acts or Practices for High-Cost Mortgages

The Bureau is finalizing proposed § 1026.34(a)(1) through (3) and comment 34(a)(3)–2 with revisions for consistency and clarity. Proposed section 1026.34(a)(1) and comment 34(a)(3)–2 are revised to replace the terms ''loan subject to section 226.32'' with ''high-cost mortgage.'' Sections 1026.34(a)(2) and (3) are revised to remove capitalization from ''assignee'' and ''within one year period,'' for consistency purposes.

34(a)(4) Repayment Ability for High-Cost Mortgages

TILA section 129(h) generally prohibits a creditor from engaging in a pattern or practice of extending credit to consumers under high-cost mortgages based on the consumers' collateral without regard to the consumers' repayment ability, including the consumers' current and expected income, current obligations, and employment.

TILA section 129(h) is implemented in current § 1026.34(a)(4). In 2008, the Board by regulation eliminated the ''pattern or practice'' requirement under the HOEPA ability-to-repay provision and also applied the repayment ability requirement to higher-priced mortgage loans. The 2008 HOEPA Rule set forth the specific requirements for verification of repayment ability in § 1026.34(a)(4)(ii). In addition,

§ 1026.34(a)(4)(iii) provides for a presumption of compliance with the ability-to-repay requirements if the creditor follows certain procedures. *See* § 1026.34(a)(4)(iii)–(iv) and comment 34(a)(4)(iii)–1. However, the 2008 HOEPA Final Rule makes clear that the presumption of compliance is rebuttable. *See* comment 34(a)(4)(iii)–1. The consumer can still rebut or overcome that presumption by showing that, despite following the procedures specified in § 1026.34(a)(4)(iii), the creditor nonetheless disregarded the consumer's ability to repay the loan. For example, the consumer could present evidence that although the creditor assessed the consumer's debt-to-income ratio or residual income, the debt-to-income ratio was very high or the residual income was very low. This evidence may be sufficient to overcome the presumption of compliance and demonstrate that the creditor extended credit without regard to the consumer's ability to repay the loan.

The Dodd-Frank Act did not amend TILA section 129(h); however, sections 1411, 1412, and 1414 of Dodd-Frank, among other things, established new ability-to-repay requirements for all residential mortgage loans under new TILA section 129C. Specifically, the Bureau's 2013 ATR Final Rule (which implements TILA section 129C) extends these new ability-to-repay requirements to any consumer credit transaction secured by a dwelling, except an open-end credit plan, a transaction secured by a consumer's interest in a timeshare plan, a reverse mortgage, or temporary loans such as construction loans and bridge loans with terms of 12 months or less. Closed-end credit transactions that are high-cost mortgages, as defined in TILA section 103(bb), will be subject to the ability-to-repay requirements pursuant to TILA section 129C and the Bureau's implementing regulations at § 1026.43. Open-end credit plans secured by the consumer's principal dwelling that are high-cost mortgages will not be subject to the ability-to-pay requirements of Bureau's 2013 ATR Final Rule, but will instead be subject to the existing ability-to-repay requirements of TILA section 129(h) and the Bureau's implementing regulations at § 1026.34(a)(4). As discussed below, the Bureau is revising § 1026.34(a)(4) to account for these significant changes to the regulatory landscape with respect to repayment ability for closed-end credit transactions, and amending the existing repayment ability requirements in current § 1026.34(a)(4) to apply specifically to high-cost open-end credit plans.

Closed-End High-Cost Mortgages

For consistency with TILA section 129C, proposed § 1026.34(a)(4) would have provided that, in connection with a closed-end high-cost mortgage, a creditor must comply with the repayment ability requirements in § 1026.43 (to be established separately under the Bureau's 2013 ATR Final Rule). Therefore, the existing requirements and the presumption of compliance under § 1026.34(a)(4)(i)–(iv) would no longer have applied to closed-end credit transactions. Rather, as set forth in the Bureau's 2013 ATR Final Rule, a creditor would have been required to consider specific criteria and records set forth in § 1026.43(c)(2) and (3) and, based on that criteria, make a ''reasonable and good faith determination at or before consummation that the consumer will have a reasonable ability to repay'' the high-cost mortgage. *See* § 1026.43(c)(1) and comments 43(c)(1)–1 and 43(c)(2)–1.

Thus, as set forth more fully in the 2013 ATR Final Rule, for any closed-end high-cost mortgage that does not meet the qualified mortgage criteria set forth in § 1026.43(e), there would have been no presumption of compliance available to creditors for the ability to repay requirement. The 2012 HOEPA Proposal stated that only open-end credit transactions are subject to the § 1026.34(a)(4) ability-to-repay requirements, and thus would have removed the presumption of compliance currently available for any such high-cost mortgage under § 1026.34(a)(4)(iii). *See* proposed comment 34(a)(4)–1.[155] However, as also set forth in the 2013 ATR Final Rule, the § 1026.43(e) rebuttable presumption of compliance with the ability-to-repay requirement would have been available for certain high-cost mortgages that meet the specific qualified mortgage criteria set forth in § 1026.43(e).[156]

The Bureau solicited comment on this aspect of the proposal, and received a few public comments from consumer groups that generally supported it. In particular, consumer groups agreed that requiring creditors to comply with the ability-to-repay requirements set forth in § 1026.43 for all closed-end credit transactions, including high-cost mortgages, should benefit consumers by simplifying compliance and enforcement of the rules, provided that the final rule does not reduce the remedies available for high-cost mortgages. No commenters raised objections to this aspect of the proposal. However, as more fully discussed in the 2013 ATR Final Rule, several consumer groups submitted comments in connection with the Board's 2011 ATR Proposal requesting that high-cost mortgages be prohibited from receiving qualified mortgage status through the 2013 ATR Final Rule. Those commenters noted that high-cost mortgages have been singled out by Congress as deserving of special regulatory treatment because of their potential to be abusive to consumers, and argued that it would seem incongruous for any high-cost mortgage to be given a presumption of compliance with the ability-to-repay rule.

The Bureau is adopting this aspect of § 1026.34(a)(4) as proposed, which is consistent with the statutory language of TILA section 129C. The Bureau notes that the 2013 ATR Final Rule does not prohibit a high-cost mortgage from being a qualified mortgage, but is mindful that allowing a high-cost mortgage to meet the qualified mortgage criteria set forth in § 1026.43 potentially raises concerns for consumer groups regarding HOEPA protections and remedies. However, the Bureau disagrees with consumer groups that suggest allowing certain high-cost mortgages to be ''qualified mortgages''—and thereby permitting a rebuttable presumption of compliance with the § 1026.43(a) repayment ability requirements for these transactions—is incongruous with the underlying consumer protection purpose of HOEPA. Rather, the Bureau believes that the net effect of requiring creditors to comply with § 1026.43 for all closed-end transactions, including those rules that pertain to the presumption of compliance available for qualified mortgages, should be enhanced consumer protection and facilitation of compliance.

There are several considerations informing the Bureau's treatment of repayment ability requirements. First, as discussed above, the Dodd-Frank Act does not prohibit high-cost mortgages

[155] In the final rule, the Bureau is adding additional clarifying language to make clear that the § 1026.34(a)(4)(iii) presumption only applies to open-end credit plans.

[156] The safe harbor available for certain qualified mortgage transactions under § 1026.43(e)(1) will not be available for HOEPA transactions that otherwise meet the qualified mortgage criteria. As set forth in the 2013 ATR Final Rule, the safe harbor is only available for loans that are not higher-priced covered transactions, as defined in § 1026.43(b)(4). This will preclude any high-cost mortgage covered by HOEPA's APR threshold from being eligible for a safe harbor. Similarly, any loan that triggers the HOEPA thresholds for limitations on points and fees and prepayment penalties will fail to satisfy the criteria for qualified mortgages, and thus will be ineligible for either the safe harbor or the rebuttable presumption of compliance available to qualified mortgages. *See* § 1026.43(e)(3) and (g).

from receiving qualified mortgage status. While the statute imposes a points and fees limit on qualified mortgages (3 percent, generally) that effectively prohibits loans that trigger the high-cost mortgage points and fee threshold from receiving qualified mortgage status, it does not impose an APR limit on qualified mortgages. Therefore, nothing in the statute prohibits a creditor from making a loan with an APR that triggers HOEPA coverage, while still meeting the criteria for a qualified mortgage.

Second, although they are similar, the Bureau generally considers the ability-to-repay requirements set forth in § 1026.43 to be more protective of consumers than the current ability-to-repay criteria for high-cost mortgages set forth in current § 1026.34(a)(4)(i)–(iv). For example, § 1026.43 would require creditors to consider additional factors not currently included in § 1026.34(a)(4), such as a consumer's monthly debt-to-income ratio or residual income. The Bureau generally believes these criteria to be more rigorous than the current ability-to-repay provisions.

Third, the Bureau believes that, for high-cost mortgages that meet the qualified mortgage definition, there is reason to provide a presumption, subject to rebuttal, that the creditor had a reasonable and good faith belief in the consumer's ability to repay notwithstanding the high interest rate. High-cost mortgages will be less likely to meet qualified mortgage criteria because the higher interest rate will generate higher monthly payments and thus require higher income to satisfy the debt-to-income test for a qualified mortgage. Where that test is satisfied—that is, where the consumer has an acceptable debt-to-income ratio calculated in accordance with qualified mortgage underwriting rules—there is no logical reason to exclude the loan from the definition of a qualified mortgage.

The Bureau also disagrees with the concerns raised by consumer groups that allowing a rebuttable presumption of compliance for these high-cost mortgages will undermine consumer protection. Rather, the Bureau believes the final rule will provide greater consumer protection than the current ability-to-repay rules, which allow for a presumption of compliance for any high-cost mortgages. *See* current § 1026.34(a)(4)(iii). As more fully set forth in the Bureau's 2013 ATR Final Rule, for any high-cost mortgages that do not meet the qualified mortgage criteria set forth in § 1026.43(e), there will be no presumption of compliance available to creditors for the § 1026.34(a)(4) ability-to-repay requirement. The Bureau believes this will provide greater consumer protection and facilitate, rather than hinder, challenges to creditors' repayment ability determinations for these transactions.

The Bureau also believes that allowing high-cost mortgages to be qualified mortgages could provide an incentive to creditors that make high-cost mortgages to satisfy the qualified mortgage requirements, which would provide additional consumer protections. For example, creditors who make high-cost mortgages as qualified mortgages will need to have verified the consumer's assets, liabilities, income and other criteria, and determined that the consumer's debt-to-income ratio meets certain specified criteria. *See* § 1026.43(e). Further protections and restrictions, such as restricting interest-only payments and limiting loan terms to 30 years, are not requirements under HOEPA, but are required to achieve qualified mortgage status.

The Bureau believes that allowing high-cost, qualified mortgages may be particularly beneficial to consumers in certain small loan markets, where some creditors may need to exceed high-cost mortgage thresholds due to the unique structure of their business. The Bureau believes that these creditors are likely to make high-cost mortgages regardless of the various disincentives to high-cost lending, and allowing for a presumption of compliance for these high-cost mortgages could provide an incentive to these creditors to make these mortgages as qualified mortgages. As discussed above, the Bureau believes this would be in the interest of consumers by providing additional consumer protections.

The Bureau also does not believe that allowing high-cost mortgages to be ''qualified mortgages'' will deprive consumers of the substantive protections or remedies afforded by HOEPA or encourage creditors to engage in high-cost lending. Other than allowing for a presumption of compliance with the § 1026.43 repayment ability requirements for those transactions that meet the criteria for qualified mortgages, the enhanced disclosure and counseling requirements, and the enhanced liability for HOEPA violations, are unaffected by the final rule.

Finally, in addition to the various benefits to consumers described above, the Bureau believes that requiring the same standards for determining repayment ability and obtaining a rebuttable presumption of compliance for other closed-end credit transactions not covered by HOEPA and high-cost mortgages that are subject to the repayment ability requirements of § 1026.43 will facilitate compliance by providing clarity and consistency between the 2013 ATR Final Rule and the 2013 HOEPA Final Rule.

''Bridge'' Loans

Because temporary or ''bridge'' loans, such as loans with maturity of 12 months or less made in connection with the acquisition or construction of a dwelling intended to become the consumer's principal dwelling are closed-end credit transactions, any such loan that is a high-cost mortgage will be subject to the ability-to-repay requirements pursuant to TILA section 129C and the Bureau's implementing regulations at § 1026.43. As discussed in the Bureau's 2013 ATR Final Rule, temporary loans such as bridge loans with terms of 12 months or less (including high-cost mortgages) are exempt from the § 1026.43 ability-to-repay requirements. The proposal nonetheless would have retained an exemption from the § 1026.34(a)(4) HOEPA ability-to-repay requirement that exists in current § 1026.34(a)(4)(v).

The Bureau received no comments on this aspect of the proposal, and is retaining the exemption from the § 1026.34(a)(4) ability-to-repay requirements for ''bridge'' loans as proposed. For clarity and organizational purposes, however, the Bureau is moving the exemption from proposed § 1026.34(a)(4)(v) to § 1026.34(a)(4), which discusses ability-to-repay for closed-end credit transactions.

The Bureau is retaining this exemption as consistent with TILA section 129C(a)(8), and pursuant to its authority under TILA section 129(p), which grants the Bureau authority to exempt specific mortgage products or categories from any or all of the prohibitions specified in TILA section 129(c) through (i) if the Bureau finds that the exemption is in the interest of the borrowing public and will apply only to products that maintain and strengthen home ownership and equity protections. Retaining this exemption is consistent with the historical and current treatment of bridge loans under HOEPA's ability-to-repay standards, and also is consistent with the TILA section 129C(a)(8) exemption for bridge loans that apply to the general ability-to-repay requirements set forth in the 2013 ATR Final Rule. The Bureau believes this approach is in the interest of the borrowing public and will strengthen home ownership and equity protection because it will not unduly restrict

access to temporary bridge financing for consumers.

Open-End High-Cost Mortgages

As previously noted, the existing ability-to-repay requirements of TILA section 129(h) will now apply to open-end credit plans that are high-cost mortgages. To facilitate compliance, the Bureau proposed to implement TILA section 129(h) as it applies to open-end credit plans in proposed § 1026.34(a)(4) by amending the existing mortgage repayment ability requirements in current § 1026.34(a)(4) to apply specifically to high-cost open-end credit plans. The Bureau solicited public comment on this issue, but did not receive any comments that addressed it.

The Bureau is revising § 1026.34(a)(4) to provide, as proposed, that in connection with an open-end credit plan subject to § 1026.32, a creditor shall not open a plan for a consumer where credit is or will be extended without regard to the consumer's repayment ability as of account opening, including the consumer's current and reasonably expected income, employment, assets other than the collateral, and current obligations, including any mortgage-related obligations. As discussed above, the Bureau notes that in the 2008 HOEPA Final Rule, the Board adopted a rule prohibiting individual high-cost mortgages or higher-priced mortgage loans from being extended based on the collateral without regard to repayment ability, in place of a prior rule prohibiting a pattern or practice of making extensions based on the collateral without regard to consumers' ability to repay. The existing requirements further create a presumption of compliance under certain conditions to provide creditors with more certainty and to mitigate potential increased litigation risk.

The Board concluded that this regulatory structure was warranted based on the comments the Board received and additional information. Specifically, the Board exercised its authority under TILA section 129(*l*)(2) (renumbered as TILA section 129(p)(2) by the Dodd-Frank Act) to revise the liability standard for high-cost mortgages based on a conclusion that the revisions were necessary to prevent unfair or deceptive acts or practices in connection with mortgage loans. *See* 73 FR 44545, at 44539 (July 30, 2008). In particular, the Board concluded that a prohibition on making individual loans without regard for repayment ability was necessary to ensure a remedy for consumers who are given unaffordable loans and to deter irresponsible lending. The Board determined that imposing the burden to prove ''pattern or practice'' on an individual consumer would leave many borrowers with a lesser remedy, such as those provided under some State laws, or without any remedy, for loans made without regard to repayment ability. The Board further determined that removing this burden would not only improve remedies for individual borrowers, it would also increase deterrence of irresponsible lending. The Board concluded that the structure of its rule would also have advantages for creditors over a ''pattern or practice'' standard, which can create substantial uncertainty and litigation risk. While the Board's rule removed the ''pattern or practice'' language from its rule, it provided certainty to creditors by including specific procedures for establishing a rebuttable presumption of compliance.

For substantially the same reasons detailed by the Board in the 2008 HOEPA Final Rule, the Bureau believes that it is necessary and proper to use its authority under TILA section 129(p)(2) to retain the existing § 1026.34(a)(4) repayment ability requirements with respect to individual open-end credit plans that are high-cost mortgages, with a presumption of compliance as specified in the regulation, rather than merely prohibiting a ''pattern or practice'' of engaging in such transactions without regard for consumers' ability to repay the loans. The Bureau believes that the concerns discussed in the 2008 HOEPA Final Rule, such as preventing unfair practices, providing remedies for individual borrowers, and providing more certainty to creditors, are equally applicable to open-end transactions that are high-cost mortgages. Furthermore, also for these same reasons, the Bureau believes it would not be in creditors' and borrowers' interest to reinsert the ''pattern or practice'' language and remove the presumption of compliance in existing § 1026.34(a)(4). Therefore, the Bureau believes that applying the existing repayment ability requirement in current § 1026.34(a)(4) to open-end high-cost mortgages is necessary to prevent unfair or deceptive acts or practices in connection with mortgage loans. *See* TILA section 129(p)(2).

The Bureau is also revising several aspects of § 1026.34(a)(4) for consistency with the 2013 ATR Final Rule and for clarification purposes. The Bureau is removing § 1026.34(a)(4)(ii)(B) and accompanying comments 34(a)(4)(ii)(B)–1 and –2, which the Bureau proposed to retain. This provision would have provided an affirmative defense for a creditor that can show that the amounts of the consumer's income or assets that the creditor relied upon in determining the consumer's repayment ability were not materially greater than the amounts the creditor could have verified using third-party records at or before consummation. The Bureau notes that the Board's 2011 ATR Proposal solicited comment on whether it should have provided this provision in the § 1026.43 repayment ability requirements which, while not specified under TILA, would have been consistent with the Board's 2008 HOEPA Final Rule. *See* 2011 ATR Proposal, 76 FR 27390, 27426 (May 11, 2011); *see also* § 1026.34(a)(4)(ii)(B).

As more fully discussed in the 2013 ATR Final Rule, the Bureau received several responses from consumer groups in response to the Board's 2011 ATR Proposal that generally opposed the affirmative defense. These commenters argued that the provision would undermine the income and asset verification requirement provided in proposed § 1026.43(c)(4). Other commenters noted that providing an affirmative defense might result in confusion, and possible litigation, over what the term ''material'' may mean, and that a rule permitting an affirmative defense would need to define materiality specifically, including from whose perspective materiality should be measured (*i.e.,* the creditor's or the consumer's).

As discussed in the 2013 ATR Final Rule, the Bureau is not adopting an affirmative defense as part of final § 1026.43 because, in the Bureau's view, such a defense could result in circumvention of the § 1026.43(c)(4) verification requirement.

Upon further consideration of proposed § 1026.34(a)(4)(ii)(B), and in light of the 2013 ATR Final Rule, the Bureau believes that the same reasoning applies to the repayment ability requirements for open-end credit transactions. In the Bureau's view, adopting the affirmative defense set forth in proposed § 1026.34(a)(4)(ii)(B) would create an unnecessary inconsistency between the repayment ability criteria in § 1026.43(c) and § 1026.34(a)(4). Further, the Bureau believes the title XIV amendments to TILA provide a strong indication that creditors should be required to verify income, assets, and other relevant information as part of the repayment ability determination. This principle is reflected in the Bureau's decision not to adopt this affirmative defense for the repayment ability requirements set forth in the 2013 ATR Final Rule. The Bureau believes that proposed § 1026.34(a)(4)(ii)(B) could have

encouraged some creditors to determine repayment ability for open-end credit plans without verifying a consumer's income, assets, and other relevant information. Removing proposed § 1026.34(a)(4)(ii)(B), on the other hand, will better protect consumers, facilitate compliance, and better harmonize the 2013 HOEPA and ATR Final Rules. Accordingly, the Bureau is removing proposed § 1026.34(a)(4)(ii)(B) and renumbering the remainder of § 1026.34(a)(4)(ii).

The Bureau is also revising the definition of ''mortgage-related obligations'' to reflect the definition set forth in the 2013 ATR Final Rule, and clarifying that, with respect to open-end credit plans, ''mortgage-related obligations'' are obligations that are required by another credit obligation undertaken prior to or at account opening, and are secured by the same dwelling. *See* § 1026.43(b)(8). For clarity and consistency with this revised definition, the Bureau is also removing existing comment 34(a)(4)(i)–1, which had further defined the term using the previous definition.

In addition, the Bureau is adopting clarifying revisions as proposed in § 1026.32(a)(4) and its associated commentary, with several additional minor edits for consistency, clarity, or organizational purposes. The Bureau is removing proposed § 1026.34(a)(4)(iv)(A), which would have excluded negatively amortizing transactions from the § 1026.34(a)(4) presumption of compliance. Given that negative amortization features are prohibited altogether for high-cost mortgages, and § 1026.34(a)(4)(iv) only applies only to open-end, high-cost mortgages, it is unnecessary to exclude such transactions from the § 1026.34(a)(4)(iii) presumption of compliance. The Bureau is also revising comment 34(a)(4)–4 to reflect this change.

The proposal generally incorporated guidance in current comments 34(a)(4)–1 through –5, with revisions for clarity and consistency. Proposed comment 34(a)(4)–1 would have clarified that the repayment ability requirement under § 1026.34(a)(4) applies to open-end credit plans subject to § 1026.32; however, the repayment ability provisions of § 1026.43 apply to closed-end credit transactions subject to § 1026.32. Proposed comment 34(a)(4)–3 also would have clarified the current commentary to conform with proposed revisions and removed the current example. Finally, proposed comment 34(a)(4)(iii)(B)–1 would have removed the examples in current comment 34(a)(4)(iii)(B) as unnecessary or inapplicable. The Bureau did not receive any comments addressing these aspects of the proposal.

The Bureau is adopting these comments as proposed, with several changes for clarity and consistency. Comment 34(a)(4)–3 is amended to clarify that ''other dwelling-secured obligations'' includes any mortgage-related obligations that are required by another credit obligation undertaken prior to or at account opening, and are secured by the same dwelling that secures the high-cost mortgage transaction.

34(a)(4)(iii)(B)

As noted above, because open-end credit plans are excluded from coverage of TILA section 129C, the existing ability-to-repay requirements of TILA section 129(h) and the Bureau's implementing regulations at § 1026.34(a)(4) would still apply to open-end credit plans that are high-cost mortgages. Moreover, because the presumption of compliance set forth in § 1026.43(e) may only apply to qualified mortgages (which cannot include open-end credit plans), the presumption of compliance set forth in § 1026.34(a)(4)(iii) will still apply to open-end credit plans that are high-cost mortgages.

The Bureau proposed to revise current § 1026.34(a)(4)(iii) to clarify the criteria that a creditor must satisfy to obtain a presumption of compliance with the repayment ability requirements for high-cost mortgages that are open-end credit plans. In particular, current § 1026.34(a)(4)(iii)(B) requires that a creditor determine the consumer's repayment ability using the largest payment of principal and interest scheduled in the first seven years following consummation and taking into account current obligations and mortgage-related obligations. The Bureau believes that it is appropriate to determine the consumer's repayment ability based on the largest periodic payment amount a consumer would be required to pay under the payment schedule. However, applying this requirement to open-end credit plans requires additional assumptions because a creditor may not know certain factors required to determine the largest required minimum periodic payment, such as the amount a consumer will borrow and the applicable annual percentage rate. Accordingly, the Bureau proposed revised § 1026.34(a)(4)(iii)(B) to require a creditor to determine the consumer's repayment ability taking into account current obligations and mortgage-related obligations as defined in § 1026.34(a)(4)(i), and using the largest required minimum periodic payment. Furthermore, proposed § 1026.34(a)(4)(iii)(B) would have required a creditor to determine the largest required minimum periodic payment based on the following assumptions: (1) The consumer borrows the full credit line at account opening with no additional extensions of credit; (2) the consumer makes only required minimum periodic payments during the draw period and any repayment period; and (3) the maximum APR that may apply under the payment plan (as required to be included in the consumer credit contract under § 1026.30) applies to the plan at account opening and will apply during the draw period and any repayment period. The Bureau received no comments on these aspects of the proposal, and accordingly is adopting them as proposed.

34(a)(5) Pre-Loan Counseling

Summary of Dodd-Frank Act Amendments

Section 1433(e) of the Dodd-Frank Act added new TILA section 129(u), which creates a counseling requirement for high-cost mortgages. Prior to extending a high-cost mortgage, TILA section 129(u)(1) requires that a creditor receive certification that a consumer has obtained counseling on the advisability of the mortgage from a HUD-approved counselor, or at the discretion of HUD's Secretary, a State housing finance authority. TILA section 129(u)(1) also prohibits such a counselor from being employed by or affiliated with the creditor. TILA section 129(u)(3) specifically authorizes the Bureau to prescribe regulations that it determines are appropriate to implement the counseling requirement. In addition to the counseling requirement, TILA section 129(u)(2) requires that a counselor verify, prior to certifying that a consumer has received counseling on the advisability of the high-cost mortgage, that the consumer has received each statement required by TILA section 129 (implemented in § 1026.32(c)) or each statement required by RESPA with respect to the transaction.[157] The Bureau is exercising

[157] In addition to the housing counseling requirement for high-cost mortgages, the Dodd-Frank Act now requires housing counseling for first-time borrowers of negative amortization loans. Section 1414(a) of the Dodd-Frank Act requires creditors to receive documentation from a first-time borrower demonstrating that the borrower has received homeownership counseling prior to extending a mortgage to the borrower that may result in negative amortization. This requirement is further discussed in the section-by-section analysis for § 1026.36(k) below.

its authority under TILA section 129(u)(3) to implement the counseling requirement in a way that ensures that borrowers will receive meaningful counseling, and at the same time that the required counseling can be provided in a manner that minimizes operational challenges.

Background Concerning HUD's Housing Counseling Program

HUD's housing counseling program is authorized by section 106 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701w and 1701x), which is implemented in 24 CFR part 214. As described in the preamble of the proposal, this program provides counseling to consumers on a broad array of topics, including seeking, financing, maintaining, renting, and owning a home. According to HUD, the purpose of the program is to provide a broad range of housing counseling services to homeowners and tenants to assist them in improving their housing conditions and in meeting the responsibilities of tenancy or homeownership. Counselors can also help borrowers evaluate whether interest rates may be unreasonably high or repayment terms unaffordable, and thus may help reduce the risk of defaults and foreclosures.

HUD historically has implemented its housing counseling program by issuing approvals of nonprofit agencies that meet its requirements for participation, monitoring these agencies, and awarding competitive grants to these agencies. HUD also provides counseling funds through State housing finance authorities and national and regional intermediaries, which provide oversight, support, and funding for affiliated local counseling agencies. HUD has required counseling agencies to meet various program requirements and comply with program policies and regulations to participate in HUD's housing counseling program.[158] While HUD's regulations establish training and experience requirements for the individual counselors employed by the counseling agencies, to date, HUD generally has not approved individual counselors. Pursuant to amendments made to the housing counseling statute by section 1445 of the Dodd-Frank Act, HUD must provide for the certification of individual housing counselors going forward. Section 106(e) of the Housing and Urban Development Act (12 U.S.C. 1701x(e)) provides that the standards and procedures for testing and certifying counselors must be established by regulation. The Bureau understands that HUD is undertaking a rulemaking to put these standards and procedures in place for individual counselors.

Pre-loan housing counseling is available generally to prospective borrowers planning to purchase or refinance a home, but Federal and State laws specifically require that counseling be provided prior to origination of certain types of loans. For example, as previously discussed in connection with the Bureau's amendment to Regulation X, Federal law requires homeowners to receive counseling before obtaining a reverse mortgage insured by the FHA (*i.e.,* a HECM).[159] HUD imposes various requirements related to HECM counseling, including, for example: Requiring FHA-approved HECM lenders to provide applicants with contact information for HUD-approved counseling agencies; delineating particular topics that need to be addressed through HECM counseling; and prohibiting HECM lenders from steering a prospective borrower to a particular counseling agency.[160] As discussed and implemented in this final rule, the Dodd-Frank Act added counseling requirements for high-cost mortgages and certain loans involving negative amortization.

Proposal

The proposal would have implemented the Dodd-Frank Act's requirement that a creditor receive written certification that a consumer has obtained counseling on the advisability of the mortgage prior to extending a high-cost mortgage to a consumer in proposed § 1026.34(a)(5) and accompanying commentary. As discussed in further detail below, the Bureau is adopting the pre-loan counseling requirement for high-cost mortgages in § 1026.34(a)(5), with several revisions.

34(a)(5)(i) Certification of Counseling Required

Consistent with the statute, proposed § 1026.34(a)(5)(i) would have prohibited a creditor from extending a high-cost mortgage unless the creditor receives written certification that the consumer has obtained counseling on the advisability of the mortgage from a HUD-approved counselor, or a State housing finance authority, if permitted by HUD.

While a significant number of both consumer group and industry commenters expressed support for the counseling requirement for high-cost mortgages, a few commenters objected to the counseling requirement generally. Some industry commenters were concerned that consumers would view counseling as an unnecessary burden due to its cost and inconvenience, or that the requirement for counseling could cause closings to be delayed. In addition, a nonprofit network that provides training to housing counselors objected to the counseling requirement out of concern that because counseling is only being required for consumers seeking the riskiest loans, counselors will be unable to influence the performance of the loans, which could cause others to question the value of counseling unfairly. This commenter instead recommended that counseling be required for all first-time borrowers seeking anything other than a 30 year, fixed-rate mortgage with fixed payments. One commenter urged that high-cost mortgages that finance manufactured housing be exempt from the counseling requirement, because the counseling fee would constitute a disproportionately large cost for these relatively small mortgages.

The Bureau does not believe any of these concerns warrant departing from the statutory requirement for high-cost mortgage counseling. The Bureau does not agree with commenters that the counseling for high-cost mortgages is an unnecessary burden. Congress made the determination that mandatory counseling would be beneficial to consumers prior to obtaining certain types of riskier loans, and the Bureau is not persuaded that it should use its authority to depart from that determination. Although the Bureau understands concerns that counseling could be valuable for some first-time borrowers of loans other than those that are fixed-rate and with fixed payments, the Bureau proposed to require and solicited comment on counseling consistent with the statute, and does not believe that it has a basis to determine whether the benefits of mandatory counseling outweigh the costs for a broader group of consumers. With respect to concerns about the perceived efficacy of counseling due to the limited nature of the counseling requirements, the Bureau does not agree that a counselor will be unable to influence the outcome of the mortgage. The Bureau believes that a consumer may decide not to move forward with a high-cost mortgage even after application, or

[158] In addition to the regulations in 24 CFR part 214, HUD's Housing Counseling Program is governed by the provisions of the HUD Housing Counseling Program Handbook 7610.1 and applicable Mortgagee letters.

[159] 12 U.S.C. 1715z–20(d)(2)(B).

[160] *See* HUD Housing Counseling Handbook 7610.1 (05/2010), Chapter 4, *available at http://www.hud.gov/offices/adm/hudclips/handbooks/hsgh/7610.1/76101HSGH.pdf* (visited June 16, 20012) (HUD Handbook).

may be able to shop or negotiate for different mortgage terms, based on counseling received on the advisability of the mortgage. Moreover, the Bureau believes that the requirement to provide a list of housing counselors under RESPA, discussed above, will encourage applicants for other types of mortgages to obtain homeownership counseling even if they are not required to do so. As to the requested exclusion from counseling for high-cost mortgages that finance manufactured housing, the Bureau believes that counseling would be equally beneficial to a consumer financing a manufactured home through a high-cost mortgage as it would be for a consumer financing another type of dwelling. Finally, the Bureau notes that the counseling provisions would permit the cost of counseling to be financed or to be paid by the creditor, provided that the creditor does not condition payment on the closing of the loan. For all of these reasons, the Bureau is finalizing the requirement for certification of counseling in § 1026.34(a)(5)(i) as proposed.

The Bureau also proposed commentary addressing a number of issues related to proposed § 1026.34(a)(5)(i), to provide creditors additional compliance guidance. As discussed in detail below, the Bureau is also adopting this guidance as proposed, with certain revisions.

TILA section 129(u) does not define the term ''State housing finance authority.'' Proposed comment 34(a)(5)–1 would have clarified that for the purposes of § 1026.34(a)(5), a State housing finance authority has the same meaning as a ''State housing finance agency'' provided in 24 CFR 214.3 of HUD's regulations implementing the housing counseling program. The Bureau proposed to use the definition contained in 24 CFR 214.3 because it specifically addresses the ability of State housing finance authorities to provide or fund counseling, either directly or through an affiliate. The Bureau did not receive any comment regarding this definition and is finalizing it as proposed, except that the Bureau is renumbering it as 34(a)(5)(i)–2 for organizational purposes.

The Bureau proposed comment 34(a)(5)(i)–1 to clarify that counselors approved by the Secretary of HUD are homeownership counselors that are certified pursuant to section 106(e) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x(e)), or as otherwise determined by the Secretary of HUD. The Bureau proposed this clarification because of its understanding that other than for its HECM counseling program, HUD currently approves housing counseling agencies and not individual counselors, but will be certifying housing counselors in the future to implement section 1445 of the Dodd-Frank Act. The proposed comment was intended to ensure that the Bureau's regulations do not impede HUD from determining which counselors qualify as HUD-approved and to account for future decisions of HUD with respect to the approval of counselors.[161] The Bureau did not receive any comments objecting to this guidance, and is adopting it as proposed.

Proposed comment 34(a)(5)(i)–2 would have provided that prior to receiving certification of counseling, a creditor may not extend a high-cost mortgage, but may engage in other activities, such as processing an application that will result in the extension of a high-cost mortgage (by, for example, ordering an appraisal or title search). As the Bureau discussed in the preamble of the proposal, nothing in the statutory requirement restricts a creditor from processing an application that will result in the extension of a high-cost mortgage prior to obtaining certification of counseling, and permitting the processing of the application is consistent with the high-cost mortgage counseling requirements as a whole.[162] Moreover, the Bureau believes that proposed comment 34(a)(5)(i)–2 is necessary to address both the ability of a creditor to provide the required disclosures to the consumer to permit certification of counseling, and to address the likelihood that a creditor may receive the required certification of counseling only days before the consummation of the loan, at the earliest. As discussed in the preamble of the proposal, new TILA section 129(u)(2) requires a counselor to verify the consumer's receipt of *each* statement required by either TILA section 129 (which sets forth the requirement for additional disclosures for high-cost mortgages and is implemented in § 1026.32(c)) or by RESPA prior to issuing certification of counseling. The additional disclosures for high-cost mortgages required under § 1026.32(c) may be provided by the creditor up to three business days prior to consummation of the mortgage. RESPA requires lenders to provide borrowers several disclosures over the course of the mortgage transaction, such as the good faith estimate and the settlement statement. Currently, the HUD–1 may be provided by the creditor at settlement.[163] Commenters generally did not raise any objections to comment 34(a)(5)(i)–2, and the Bureau is finalizing it as proposed, except that it is renumbering it as 34(a)(5)(i)–3 for organizational purposes.

Proposed comment 34(a)(5)(i)–3 would have set forth the methods whereby a certification form may be received by the creditor. The proposed comment clarifies that the written certification of counseling may be received by any method, such as mail, email, or facsimile, so long as the certification is in a retainable form. The Bureau did not receive any comments on this guidance, and except for renumbering it as 34(a)(5)(i)–4, is finalizing it as proposed.

One counseling association requested clarification that the required certification of counseling is not an indication that a counselor has made a judgment about the appropriateness of a high-cost mortgage for a consumer. This commenter expressed its support for proposed comment 34(a)(5)(iv)–1, which similarly would have provided that a statement that a consumer has received counseling on the advisability of a high-cost mortgage does not require the counselor to have made a judgment as to the appropriateness of the high-cost mortgage, as discussed below. The Bureau agrees that it would be useful to clarify that certification of counseling is not evidence of a counselor's opinion of the loan for the consumer, but only that the consumer has received counseling. Accordingly, the Bureau has added new comment 34(a)(5)(i)–5 to address the purpose of certification in the final rule.

A few commenters raised operational issues related to the certification process, including generally asking for more guidance and asking the Bureau to allow creditors to move forward with the consummation of a high-cost mortgage without a certification form if the counselor does not provide the form

[161] HUD has stated that it ''may require specialized training or certifications prior to approving certain housing counseling services, such as HECM counseling.'' HUD Handbook at 3–2.

[162] The HECM program requires counseling to occur before a HECM lender may ''process'' an application, meaning that the creditor may accept an application, but ''may not order an appraisal, title search, or an FHA case number or in any other way begin the process of originating a HECM loan'' before the consumer has received counseling. HUD Mortgagee Letter 2004–25 (June 23, 2004). However, the Bureau notes that HECM counselors are not required to verify the receipt of transaction-specific disclosures prior to issuing a certification of counseling.

[163] The Bureau notes that as part of its 2012 TILA–RESPA Proposal, the Bureau proposed requiring that a closing disclosure combining the RESPA settlement statement and the final TILA disclosure be provided to a consumer prior to settlement. However, the Bureau does not anticipate that any such requirement will take effect until after the effective date for the requirements for high-cost mortgages.

to the creditor within a certain time period. The Bureau has not proposed additional guidance related to the certification process, in part because the Bureau believes that it is important to allow flexibility so that counselors and creditors can develop processes that work best. The Bureau also declines to permit a creditor to consummate a high-cost mortgage without receiving certification of counseling, which is required by the statute. Such a result would be inconsistent with the basic statutory scheme, since absent certification, a creditor could not be certain that counseling occurred, that the counseling addressed the required elements, or that the counselor was able to verify receipt of the required disclosures.

34(a)(5)(ii) Timing of Counseling

As noted above, TILA section 129(u)(1) requires that a creditor receive certification of counseling prior to extending a high-cost mortgage to a consumer, but otherwise does not address when counseling should occur. Proposed § 1026.34(a)(5)(ii) would have required counseling to occur after the consumer receives either the good faith estimate required under RESPA or the disclosures required under § 1026.40 for open-end credit. The Bureau noted in the preamble to the proposal that permitting counseling to occur as early as possible allows consumers more time to consider whether to proceed with a high-cost mortgage and to shop or negotiate for different mortgage terms. However, the Bureau believes that it is also important that counseling on a high-cost mortgage address the specific loan terms being offered to a consumer. The Bureau therefore concluded that requiring the receipt of either of these transaction-specific documents prior to the consumer's receipt of counseling on the advisability of the high-cost mortgage would best ensure that the counseling session can address the specific features of the high-cost mortgage and that consumers will have an opportunity to ask questions about the loan terms offered. At the same time, given that these documents are provided to the consumer within a few days following application, the Bureau believes that the proposal permits counseling to occur early enough to give consumers sufficient time after counseling to consider whether to proceed with the high-cost mortgage transaction and to consider alternative options.[164]

Despite the verification requirement, the Bureau does not believe that it would make sense to wait until receipt of all disclosures referenced in the statute to permit counseling to occur. Accordingly, nothing in proposed § 1026.34(a)(5)(ii) would require a counselor to wait for the receipt of either the § 1026.32(c) disclosure or the full set of RESPA disclosures that must be verified prior to certification to provide counseling. As noted above, the § 1026.32(c) high-cost mortgage disclosure is generally required to be provided to the consumer no later than three business days prior to consummation of the loan, and one of the disclosures required under RESPA, the HUD–1, currently may be provided to the consumer at settlement. As a practical matter, this means that certification would not happen until right before closing. The Bureau does not believe that delaying counseling pending receipt of all disclosures would benefit consumers, because consumers may not be able to walk away from the transaction or seek better loan terms so late in the process. Accordingly, the Bureau concluded that the best approach would be a two-stage process in which counseling would occur prior to and separately from the receipt of the high-cost mortgage disclosures, after which the counselor would confirm receipt of the disclosures, answer any additional questions from the consumer, and issue the certification. Under these circumstances, a consumer obtaining a high-cost mortgage would have at least two separate contacts with his housing counselor, the first to receive counseling on the advisability of the high-cost mortgage, and the second to verify with the counselor that the consumer has received the applicable disclosures. The Bureau noted its belief that a second contact may be beneficial to consumers because it gives consumers an opportunity to request that the counselor explain the disclosure and to raise any additional questions or concerns they have, just prior to consummation.

Proposed comment 34(a)(5)(ii)–1 clarified that for open-end credit plans subject to § 1026.32, proposed § 1026.34(a)(5)(ii) permits receipt of either the good faith estimate required by RESPA or the disclosures required under § 1026.40 to allow counseling to occur, because 12 CFR 1024.7(h) permits the disclosures required by § 1026.40 to be provided in lieu of a good faith estimate, in the case of an open-end credit plan.

Proposed comment 34(a)(5)(ii)–2 clarified that counseling may occur after the consumer receives either an initial good faith estimate or a disclosure under § 1026.40, regardless of whether a revised disclosure is subsequently provided to the consumer.

The Bureau solicited comment on the proposed timing requirements for counseling, including whether a second contact would help facilitate compliance with the requirement for certification of counseling. Most commenters were generally supportive of the timing proposed by the Bureau, and the accompanying guidance. Commenters noted that the Bureau's proposal would allow counseling to occur early in the process, but also provide counselors with the ability to view specific disclosures. A few commenters, however, expressed a view that the counseling should occur earlier in the process, *e.g.,* before a consumer shops for a property or a loan.

The Bureau agrees that counseling earlier in the process may be beneficial to some consumers. However, the Bureau believes that for high-cost mortgage borrowers, it is also important that the consumer receive counseling on the terms of the mortgage the consumer is offered. The ability to view the mortgage specific disclosures will allow counselors to provide counseling that addresses the affordability of the specific loan the consumer is considering. Moreover, the Bureau notes that practically speaking, a creditor is not likely to know whether or not the consumer will be offered a high-cost mortgage prior to receiving the consumer's application. For these reasons, the Bureau is finalizing § 1026.34(a)(5)(ii) as proposed, with minor edits for clarity and consistency.

34(a)(5)(iii) Affiliation Prohibited

Proposed § 1026.34(a)(5)(iii)(A) would have implemented the general prohibition in new TILA section 129(u)(1) that the counseling required for a high-cost mortgage shall not be provided by a counselor who is employed by or affiliated [165] with the creditor extending the high-cost mortgage. Pursuant to the Bureau's authority under TILA 129(u)(3), proposed § 1026.34(a)(5)(iii)(B) also would have created an exemption from this general prohibition for a State

[164] The Bureau notes that as part of its 2012 TILA–RESPA Proposal, the Bureau proposed that the good faith estimate required by RESPA be combined with the early TILA disclosure. Proposed § 1026.34(a)(5)(ii) was intended to permit both the current good faith estimate or a future combined disclosure to satisfy the requirement in order to trigger counseling.

[165] ''Affiliate'' is defined in § 1026.32(b)(2) to mean ''any company that controls, is controlled by, or is under common control with another company, as set forth in the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*).''

housing finance authority that both extends a high-cost mortgage and provides counseling to a consumer, either itself or through an affiliate, for the same high-cost mortgage transaction.

The Bureau requested comment on the proposed general affiliation prohibition, the exemption provided for State housing finance authorities, and whether the Bureau should consider excepting any other entities from the general affiliation prohibition, including nonprofit counseling agencies. A number of commenters supported the general affiliation prohibition, and several commenters also supported the exemption to the affiliation prohibition for State housing finance authorities. A few commenters, including a consumer group and an association for nonprofit counseling organizations, urged the Bureau to also exempt nonprofit organizations with 501(c)(3) status from the affiliation prohibition because such entities also provide small loans for purposes such as emergency repair or foreclosure rescue that may be classified as high-cost. These commenters noted that organizations with 501(c)(3) status have a higher level of accountability than other entities.

The Bureau is adopting § 1026.34(a)(5)(iii)(A) substantially as proposed. However, because a transaction made by a Housing Finance Agency acting as the creditor is now exempt from HOEPA coverage, as discussed in the section-by-section analysis to § 1026.32(a)(1), the Bureau is not finalizing § 1026.34(a)(5)(iii)(B). The Bureau does not believe that an exemption from the affiliation prohibition is necessary for State housing finance authorities, given the general exemption from HOEPA for the transactions they make. With respect to the request for an exemption for loans originated by organizations with 501(c)(3) status, the Bureau agrees that as with loans made by State housing finance authorities, such loans may be beneficial to consumers. However, the Bureau is concerned that an entity's 501(c)(3) status may not be sufficient to prevent potential abuses and that an entity could be motivated to obtain nonprofit status in order to avoid the affiliation prohibition, if it were to exempt such entities. The Bureau is aware, for example, of concerns that credit counseling organizations engaging in questionable activities have sought nonprofit status to circumvent consumer protection laws.[166] Accordingly, the Bureau declines to create an exception to the affiliation prohibition for nonprofit organizations.

34(a)(5)(iv) Content of Certification

As described above, TILA section 129(u)(1) requires a creditor to receive certification that the consumer has received counseling on the advisability of the mortgage prior to extending the high-cost mortgage, and TILA section 129(u)(2) requires a counselor to verify a consumer's receipt of each statement required by TILA section 129 or RESPA in connection with the transaction prior to certifying the consumer has received counseling. Proposed § 1026.34(a)(5)(iv) would have set forth requirements for the certification form that is provided to the creditor. Specifically, proposed § 1026.34(a)(5)(iv) would have provided that the certification form must include the name(s) of the consumer(s) who obtained counseling; the date(s) of counseling; the name and address of the counselor; a statement that the consumer(s) received counseling on the advisability of the high-cost mortgage based on the terms provided in either the good faith estimate or the disclosures required by § 1026.40; and a statement that the counselor has verified that the consumer(s) received the § 1026.32(c) disclosures or the disclosures required by RESPA with respect to the transaction.

TILA section 129(u) did not define the term ''advisability.'' The Bureau proposed guidance in comment 34(a)(5)(iv)–1 that would have addressed the meaning of the statement that a consumer has received counseling on the advisability of the high-cost mortgage. Specifically, the Bureau proposed that a statement that a consumer has received counseling on the advisability of a high-cost mortgage means that the consumer has received counseling about key terms of the mortgage transaction, as set out in the disclosures provided to the consumer pursuant to RESPA or § 1026.40; the consumer's budget, including the consumer's income, assets, financial obligations, and expenses; and the affordability of the loan for the consumer. The Bureau further provided some examples of such key terms of the mortgage transaction that are included in the good faith estimate or the disclosures required under § 1026.40 that are provided to the consumer. The Bureau noted in the preamble of the proposal that requiring counseling on the high-cost mortgage to address terms of the specific high-cost mortgage transaction is consistent with both the language and purpose of the statute, and that a requirement that counseling address the consumer's budget and the affordability of the loan is appropriate, since these are factors that are relevant to the advisability of a mortgage transaction for the consumer. HUD already requires counselors to analyze the financial situation of their clients and establish a household budget for their clients when providing housing counseling.[167]

Proposed comment 34(a)(5)(iv)–1 would have further explained, however, that a statement that a consumer has received counseling on the advisability of the high-cost mortgage does not require the counselor to have made a judgment or determination as to the appropriateness of the loan for the consumer. The proposal would have provided that such a statement means the counseling has addressed the affordability of the high-cost mortgage for the consumer, not that the counselor is required to have determined whether a specific loan is appropriate for a consumer or whether a consumer is able to repay the loan.[168]

Proposed comment 34(a)(5)(iv)–2 would have clarified that a counselor's verification of either the § 1026.32(c) disclosures or the disclosures required by RESPA means that a counselor has confirmed, orally, in writing, or by some other means, receipt of such disclosures with the consumer. The Bureau noted that a counselor's verification of receipt of the applicable disclosures would not indicate that the applicable disclosures provided to the consumer with respect to the transaction were complete, accurate, or properly provided by the creditor.

Commenters raised two main points concerning proposed § 1026.34(a)(5)(iv). First, a significant number of commenters raised concerns about the form of counseling and requested that the Bureau permit counseling to occur through means other than in person, such as by telephone, group classes, or self-study, particularly in rural areas where counseling resources may be more limited. A few commenters also raised concerns about proposed comment 34(a)(5)(iv)–1 and the guidance that a statement that a consumer has received counseling on the advisability of the high-cost mortgage does not require the counselor

[166] See *http://www.irs.gov/uac/IRS,-FTC-and-State-Regulators-Urge-Care-When-Seeking-Help-from-Credit-Counseling-Organizations.*

[167] HUD Handbook at 3–5.

[168] This is consistent with HUD's guidance related to the certification of counseling provided for the HECM program, which indicates that the issuance of a HECM counseling certificate ''attests ONLY to the fact that the client attended and participated in the required counseling and that the statutorily required counseling for a HECM was provided'' and ''does NOT indicate whether the counseling agency recommends or does not recommend the client for a reverse mortgage.'' HUD Handbook at 4–18 (emphases in original).

to have determined whether a loan is appropriate for the consumer. These commenters believe that counselors should advise consumers on whether or not they should accept the high-cost mortgage and that advising consumers in this manner would be beneficial.

The Bureau is finalizing proposed § 1026.34(a)(5)(iv) and its associated commentary as proposed, with minor edits for clarity and consistency. The Bureau agrees that counseling for a high-cost mortgage should not be required to be received in person, and the Bureau notes that nothing in the proposed or final regulation or commentary would prohibit or prescribe any particular format for the required counseling. The Bureau also notes, however, that the requirement for a certification form completed by a counselor will necessitate that the counseling be provided by a counselor. As such, certain forms of counseling, such as self-study, cannot be used to satisfy the counseling requirement.

The Bureau also agrees with commenters that consumers may benefit from a counselor's judgment about whether a mortgage is appropriate for the consumer. However, the Bureau notes that nothing in the regulation or commentary would prohibit or restrict a counselor from advising a consumer whether or not to enter into the high-cost mortgage. Under the proposal, a counselor would be permitted to advise the consumer in the manner the counselor deemed most helpful, in accordance with the requirements set forth by HUD, but a counselor would not be *required* to make a determination as to the appropriateness of the mortgage.

34(a)(5)(v) Counseling Fees

TILA section 129(u) does not address the payment of fees for high-cost mortgage counseling. As the Bureau discussed in the preamble of the proposal, HUD generally permits housing counselors to charge reasonable fees to consumers for counseling services, if the fees do not create a financial hardship for the consumer.[169] For most of its counseling programs, HUD also permits creditors to pay for counseling services, either through a lump sum or on a per case basis, but imposes certain requirements on this funding to minimize potential conflicts of interest. For example, HUD requires that the payment be commensurate with the services provided and be reasonable and customary for the area, the payment not violate the requirements of RESPA, and the payment and the funding relationship be disclosed to the consumer.[170] In the HECM program, however, creditor funding of counseling is prohibited. Due to concerns that counselors may not be independent of creditors and may present biased information to consumers, section 255(d)(2)(B) of the National Housing Act, as amended by section 2122 of the Housing and Economic Recovery Act of 2008, prohibits mortgagees from paying for HECM counseling on behalf of mortgagors.

As noted in the preamble, the Bureau believes that counselor impartiality is essential to ensuring that counseling affords meaningful consumer protection. Without counselor impartiality, the counseling a consumer receives on the advisability of a high-cost mortgage could be of limited value. However, the Bureau is also aware of concerns that housing counseling resources are limited and that funding for counseling may not be adequate.[171] Prohibiting creditor funding of counseling may make it more difficult for counseling agencies to maintain their programs and provide services so that consumers may meet the legal requirement to receive counseling prior to obtaining a high-cost mortgage. It may also create financial hardships for borrowers of high-cost mortgages who would otherwise be obligated to pay the counseling fee upfront or finance the counseling fee.

Proposed § 1026.34(a)(5)(v) would have addressed the funding of counseling fees by permitting a creditor to pay the fees of a counselor or counseling organization for high-cost mortgage counseling. However, to address potential conflicts of interest, the Bureau also proposed that a creditor may not condition the payment of these fees on the consummation of the high-cost mortgage. Moreover, the Bureau proposed that if the consumer withdraws the application that would result in the extension of a high-cost mortgage after receiving counseling, a creditor may not condition payment of counseling fees on the receipt of certification from the counselor required by proposed § 1026.34(a)(5)(i). If a counseling agency's collection of fees were contingent upon the consummation of the mortgage, or receipt of a certification, a counselor might have an incentive to counsel a consumer to accept a loan that is not in the consumer's best interest. The Bureau recognized, however, that a creditor may wish to confirm that a counselor has provided services to a consumer, prior to paying a counseling fee. Accordingly, proposed § 1026.34(a)(5)(v) also would have provided that a creditor may otherwise confirm that a counselor has provided counseling to a consumer prior to paying counseling fees. The Bureau believed proposed § 1026.34(a)(5)(v) would help preserve the availability of counseling for high-cost mortgages, and at the same time help ensure counselor independence and prevent conflicts of interest that may otherwise arise from creditor funding of counseling.

The Bureau also proposed comment 34(a)(5)(v)–1 to address the financing of counseling fees to likewise preserve the availability of counseling for high-cost mortgages. The proposed comment would have clarified that proposed § 1026.34(a)(5)(v) does not prohibit a creditor from financing the counseling fee as part of the mortgage transaction, provided that the fee is a bona fide third party charge as defined by proposed § 1026.32(b)(5)(i). The proposal was intended to ensure that several options are available for the payment of any counseling fees, such as a consumer paying the fee directly to the counseling agency, the creditor paying the fee to the counseling agency, or the creditor financing the counseling fee for the consumer.

Several commenters were supportive of the proposal to allow lender funding of counseling with the restriction that the funding cannot be contingent upon consummation of the high-cost mortgage. Other commenters raised general concerns about the lack of funding for counseling and the lack of counseling resources, particularly in rural areas. One commenter suggested that the Bureau address the lack of funding by amending the HUD–1 settlement form to provide a line item for ''counseling/education'' fees, to legitimize the payment of counseling fees from closing costs. As noted in the preamble of the proposal, the Bureau is aware of concerns about the adequacy of funding for counseling. The Bureau is not persuaded, however, that it should take additional measures to address this concern beyond its proposal to ensure that several options are available for the payment of counseling fees in the context of this rulemaking. The Bureau is therefore adopting § 1026.34(a)(5)(v) and its associated commentary as proposed.

34(a)(5)(vi) Steering Prohibited

TILA section 129(u) does not address potential steering of consumers by

[169] 24 CFR 214.313(a), (b).

[170] 24 CFR 214.313(e); 214.303.

[171] *See* U.S. Department of Housing and Urban Development Office of Policy Development & Research, *The State of the Housing Counseling Industry* (Sept. 2008), at 22, 59, 156–57.

creditors to particular counselors. Pursuant to its authority under TILA section 129(u)(3), proposed § 1026.34(a)(5)(vi) would have provided that a creditor that extends a high-cost mortgage shall not steer or otherwise direct a consumer to choose a particular counselor or counseling organization for the required counseling. The Bureau proposed this restriction to help preserve counselor independence and prevent conflicts of interest that may arise when creditors refer consumers to particular counselors or counseling organizations. Under the HECM program, lenders providing HECMs are prohibited from steering consumers to any particular counselor or counseling agency.[172] As the Bureau noted in the preamble to the proposal, absent a steering prohibition, a creditor could direct the consumer to a counselor with whom the creditor has a tacit or express agreement to refer customers in exchange for favorable advice on the creditor's products in the counseling session.

The Bureau also proposed comments 34(a)(5)(vi)–1 and 2, to provide an example of an action that constitutes steering and an example of an action that does not constitute steering.

The Bureau solicited comment on its proposed approach to prevent steering of consumers to particular counselors or counseling organizations and the examples proposed in comments 34(a)(5)(vi)–1 and 2. The Bureau did not receive any comments addressing the steering prohibition or examples, and adopts them as proposed.

34(a)(5)(vii) List of Counselors

Proposed Provisions Not Adopted

Proposed § 1026.34(a)(5)(vii) would have added a requirement that a creditor provide to a consumer for whom counseling is required a notice containing a list of five counselors or counseling organizations approved by HUD to provide high-cost mortgage counseling. Proposed § 1026.34(a)(5)(vii) would have further stated that a creditor will be deemed to have complied with the obligation to provide a counselor list if the creditor complied with the broader obligation proposed under Regulation X, § 1024.20, discussed above, to provide a counselor list to any applicant for a federally related mortgage loan.

The Bureau sought comment on the content and form of the required counselor list. Comments addressing these aspects of the list are addressed above, in the discussion of § 1024.20. The Bureau also sought comment on whether some creditors would likely comply with the counselor list requirement in § 1026.34(a)(5)(vii) independent of their obligations under RESPA. The Bureau did not receive any comments indicating that creditors would likely comply with the high-cost mortgage counseling list requirement other than through the general obligation to provide a counseling list in § 1024.20.

As noted above, the Bureau is finalizing the counseling list requirement under § 1024.20 to apply broadly to all federally related mortgage loans, including open-end credit plans. Given the scope of this requirement, a creditor extending a high-cost mortgage to a consumer will always be obliged to provide a consumer with a notice about counseling resources under § 1024.20. As a result, because it would duplicate the requirement in § 1024.20, the Bureau is not adopting proposed § 1026.34(a)(5)(vii) in the final rule.

34(a)(6) Recommended Default

Proposed § 1026.34(a)(6) would have implemented the prohibition on a creditor recommending that a consumer default on an existing obligation in connection with a high-cost mortgage, in new section 129(j) of TILA, which was added by section 1433(a) of the Dodd-Frank Act. Specifically, section 129(j) of TILA prohibits creditors from recommending or encouraging a consumer to default on an ''existing loan or other debt prior to and in connection with the closing or planned closing of a high-cost mortgage that refinances all or any portion of such existing loan.'' The Bureau proposed to use its authority under section 129(p)(2) of TILA to extend this prohibition in proposed § 1026.34(a)(6) to mortgage brokers, in addition to creditors. Section 129(p)(2) provides that the ''Bureau by regulation * * * shall prohibit acts or practices in connection with * * * refinancing of mortgage loans the Bureau finds to be associated with abusive lending practices, or that are otherwise not in the interest of the borrower.''

The proposal noted that section 129(j) prohibits a practice—in connection with a refinancing—that is abusive or ''otherwise not in the interest of the borrower'' whereby a creditor advises a consumer to stop making payments on an existing loan knowing that if the consumer takes that advice, the consumer will default on the existing loan. Following the creditor's advice could therefore leave the consumer with no choice but to accept a high-cost mortgage originated by that creditor, with terms that are likely less favorable to the consumer, to refinance and eliminate the default on the existing loan. As noted in the preamble of the proposed rule, the Bureau believes that it is appropriate to extend the same prohibition against such creditor actions to mortgage brokers, who often have significant interaction with consumers with regard to the refinancing of mortgage loans and could have similar incentives to encourage defaults that are not in the interest of the consumer. As stated by the Board in 2008 HOEPA Final Rule, 73 FR 44522, 44529 (July 30, 2008), the exception authority under TILA section 129(p)(2) is broad, and is not limited to practices of creditors. Proposed § 1026.34(a)(6) therefore prohibits this practice for both creditors and mortgage brokers.[173] The Bureau received comments from a few consumer groups that supported this extension and no comments that opposed it. Therefore, the Bureau is adopting § 1026.34(a)(6) as proposed.

In addition, the Bureau proposed comments to § 1026.34(a)(6), which would have clarified that whether a creditor or mortgage broker ''recommends or encourages'' a consumer to default on an existing loan depends on the relevant facts and circumstances, and provided examples. Specifically, the Bureau proposed comment 34(a)(6)–2, which explained that a creditor or mortgage broker ''recommends or encourages'' default when the creditor or mortgage broker advises the consumer to stop making payments on an existing loan ''knowing that the consumer's cessation of

[172] HUD Handbook at 4–11.

[173] An additional statutory basis for extending this prohibition to mortgage brokers is the authority provided under Section 129(p)(2)(A) of TILA, which requires the Bureau to ''by regulation * * * prohibit acts or practices in connection with—(A) mortgage loans that the Bureau finds to be unfair, deceptive, or designed to evade the provisions of this section.'' Under the practice prohibited by Section 129(j), the borrower may be deceived into stopping payment on their existing loan due to a misrepresentation made by a mortgage broker that to do so will be of no consequence to the borrower—even though the nonpayment will result in a default by that borrower, in effect forcing the borrower to take the high cost mortgage offered by the mortgage broker to eliminate that default. This scenario would likely meet the basic elements of a deceptive act or practice: (1) A representation, omission or practice that is likely to mislead the consumer; (2) the consumer acted reasonably in the circumstances; and (3) the representation, omission, or practice is ''material,'' *i.e.,* is likely to affect the consumer's conduct or decision with regard to a product or service (*i.e.,* the accepting of a high-cost mortgage). *See* Board's final rule on higher-priced mortgage loans, 73 FR 44522, 44528–29 (July 30, 2008), citing to a letter from James C. Miller III, Chairman, Federal Trade Commission to Hon. John D. Dingell, Chairman, H. Comm. on Energy and Commerce (Oct. 14, 1983), in explaining the Board's authority to prohibit unfair and deceptive practices under then Section 129(l)(2) of TILA.

payments will cause the consumer to default on the existing loan.'' Proposed comment 34(a)(6)–2 also explained that a creditor or mortgage broker does not recommend or encourage default by ''advis[ing] a consumer, in good faith, to stop payment on an existing loan that is intended to be paid prior to the loan entering into default by the proceeds of a high-cost mortgage upon the consummation of that high-cost mortgage, if the consummation is delayed for reasons outside the control of the creditor or mortgage broker.''

The Bureau solicited comment on the proposed examples and on additional possible examples where a creditor or mortgage broker may or may not be recommending or encouraging a consumer's default. The Bureau received a few public comments addressing proposed comment 34(a)(6)–2. For example, one consumer group suggested that the proposed discussions of ''knowledge'' and ''good faith'' were vague and could undermine what it believed Congress intended to be a ''bright line'' prohibition on any communication that may be viewed as a recommended default. Commenters did not suggest alternative language for the Bureau to use in place of this comment, but instead urged the Bureau to strike proposed comment 34(a)(6)–2 altogether, or replace it with a general statement that any recommendation or encouragement of nonpayment violates the ban.

The Bureau agrees with these commenters that the discussion of ''knowledge'' and ''good faith'' in proposed comment 34(a)(6)–2 could be confusing to creditors or to consumers. However, the Bureau believes that a flat prohibition of communication between a creditor or broker and a consumer concerning the relationship between timing of the next payment due on the existing loan and the anticipated date of consummation of the new high-cost mortgage would be unnecessary and contrary to the interests of consumers. In particular, the Bureau believes that such a prohibition could result in consumers unnecessarily making payments on loans that will be paid off prior to the due date, and then needing to seek refunds after payoff. Such a result would be inefficient and contrary to the interests of consumers—particularly those with limited financial resources. On the other hand, the Bureau believes permitting limited communication from the creditor or broker to inform the borrower that the anticipated consummation date of the new high-cost mortgage will occur prior to the next payment due date on an existing loan to be refinanced by the high-cost mortgage will help prevent this inefficiency and benefit consumers.

For these reasons, the Bureau believes that operational guidance would be helpful regarding certain situations where a consumer is scheduled to refinance an existing loan through a new high-cost mortgage, and that loan is scheduled to be consummated prior to the due date for the next payment due on the consumer's existing loan. The Bureau is adopting a revised comment 34(a)(6)–2, which addresses these concerns. Revised comment 34(a)(6)–2 removes the references to ''knowledge'' and ''good faith'' and instead provides that a creditor or mortgage broker ''recommends or encourages'' default when the creditor or mortgage broker advises the consumer to stop making payments on an existing loan in a manner that is likely to cause the consumer to default on the existing loan. The Bureau believes that this language will alleviate the consumer protection concerns raised by commenters without unnecessarily restricting communication between a borrower and a creditor or broker.

Revised comment 34(a)(6)–2 further provides operational guidance on certain instances where delay of consummation of a high-cost mortgage occurs for reasons outside the control of a creditor or mortgage broker. In those circumstances, revised comment 34(a)(6)–2 provides that a creditor or mortgage broker does not ''recommend or encourage'' default because the creditor or mortgage broker informs a consumer that the new high-cost mortgage is scheduled to be consummated prior to the due date for the next payment due on the consumer's existing loan (which is intended to be paid by the proceeds of the new high-cost mortgage) so long as the creditor or broker also informs the consumer that any delay of consummation of the new high-cost mortgage beyond the payment due date of the existing loan will not relieve the consumer of the obligation to make timely payment on that loan. For the reasons set forth above, the Bureau believes these revisions also address the consumer protection concerns raised by commenters without unnecessarily restricting communication between a borrower and a creditor or broker.

34(a)(7) Modification and Deferral Fees

The Bureau proposed a new § 1026.34(a)(7) to implement the prohibition on modification and deferral fees for high-cost mortgages in new section 129(s) of TILA, as added by section 1433(b) of the Dodd-Frank Act. Specifically, section 129(s) of TILA prohibits a ''creditor, successor in interest, assignee, or any agent'' of these parties from charging a consumer ''any fee to modify, renew, extend, or amend a high-cost mortgage, or to defer any payment due under the terms of such mortgage.'' As proposed, § 1026.34(a)(7) would have closely followed the statutory language in its implementation of section 129(s).

The Bureau sought comment on the applicability of the prohibition to a refinancing of a high-cost mortgage, including where the refinancing would place the consumer in a non-high-cost mortgage. The Bureau also sought comment on the specific circumstances, including examples, under which the prohibition on modification and deferral fees is particularly needed to protect consumers. The Bureau further sought information on the implications of the Bureau's proposal on practices for open-end credit, and specifically on the extent to which fees are charged for a consumer's renewal or extension of the draw period under such open-end credit plans.

The Bureau received no public comments regarding the application of this proposal to open-end credit and fees for renewal or extension of draw periods. The Bureau received comments from several consumer groups expressing support for the prohibition. Consumer advocates also urged the Bureau to clarify that the prohibition covers certain practices, including forbearances and conditioning a modification on a consumer paying a portion of the amount in arrears. Industry commenters, including community banks, voiced general opposition to the prohibition on the basis that loan modifications and deferrals involve administrative costs for the lender and the prohibition on charging consumers for them will lead to increased costs for all consumers. One commenter suggested that the prohibition may discourage lenders from offering modifications or deferrals, and several suggested that it would discourage lenders from making high-cost mortgages at all. Other industry commenters sought clarification on the specific types of fees and charges covered by the rule.

The Bureau is adopting § 1026.34(a)(7) as proposed. In the Bureau's view, the language of section 129(s) of TILA suggests that Congress intended the prohibition on loan modification and deferral fees to be broad. The statute specifically prohibits ''any fee to modify, renew, extend, or amend a high-cost mortgage'' or ''to defer any payment due under the terms of such mortgage.'' The Bureau thus believes that the language of section

129(s) is sufficiently broad to include forbearances and that further clarifying commentary is unnecessary. In addition, the Bureau recognizes that industry commenters argued that proposed § 1026.34(a)(7) may lead to increased costs. However, industry's general concerns do not provide an adequate basis to alter the unequivocal prohibition on modification and deferral fees set forth in the statute. Accordingly, the Bureau will adopt proposed § 1026.34(a)(7) as proposed.

34(a)(8) Late Fees

Section 1433(a) of the Dodd-Frank Act added to TILA a new section 129(k) establishing limitations on late fees on high-cost mortgages. Proposed § 1026.34(a)(8) would have implemented these limitations with minor modifications for clarity.

New TILA section 129(k)(1) generally provides that any late payment charge in connection with a high-cost mortgage must be specifically permitted by the terms of the loan contract or open-end credit agreement and must not exceed four percent of the ''amount of the payment past due.'' No such late payment charge may be imposed more than once with respect to a single late payment, or prior to the expiration of certain statutorily prescribed grace periods (*i.e.,* for transactions in which interest is paid in advance, no fee may be imposed until 30 days after the date the payment is due; for all other transactions, no fee may be imposed until 15 days after the date the payment is due). Proposed §§ 1026.34(a)(8)(i) and (ii) would have implemented new TILA section 129(k)(1) consistent with the statute.

The Bureau sought comment on whether additional guidance is needed concerning the meaning of the phrase ''amount of the payment past due'' or the application of § 1026.34(a)(8) to open-end credit plans. As discussed in detail below, the Bureau did not receive any comments addressing these issues. The Bureau received a small number of comments from industry objecting to the proposal's implementation of the limitation on late fees. The commenters expressed concern that the limitation is inconsistent with current industry practices, which typically allow for a 5 percent late charge. They also argued that a 4 percent limit is too low to cover lenders' collection cost or adequately incentive timely payments. The Bureau acknowledges these concerns, but does not believe that they provide a principled basis to depart from the specific limits set forth by the statute.

The Bureau is aware that some consumer groups believe that the new prohibition of late fees should be placed within section 32(d) as a limitation rather than within section 34 as a prohibited act or practice. For purposes of organization, the Bureau believes that the late fee prohibition is most appropriately contained within section 34, and thus declines to depart from the proposal in this respect.

Amount Past Due

New TILA section 129(k)(1) does not define the phrase ''amount of the payment past due.'' Proposed comment 34(a)(8)(i)–1 would have explained that, for purposes of proposed § 1026.34(a)(8)(i), the ''payment past due'' in an open-end credit plan is the required minimum periodic payment, as provided under the terms of the plan. This comment was intended to clarify that, for open-end credit plans, where monthly payment amounts can vary depending on the consumer's use of the credit line, the ''payment past due'' is the required minimum periodic payment that was due immediately prior to the assessment of the late payment fee. The Bureau sought comment on the appropriateness of this definition. The Bureau also sought comment on whether additional guidance was needed concerning the meaning of the phrase ''amount of the payment past due'' in the context either of closed-end credit transactions or in the case of partial mortgage payments. The Bureau did not receive any comments addressing these aspects of the proposal. Accordingly, the Bureau is adopting §§ 1026.34(a)(8)(i) and (ii) as proposed.

34(a)(8)(iii) Multiple Late Charges Assessed on Payment Subsequently Paid

New TILA section 129(k)(2) prohibits the imposition of a late charge in connection with a high-cost mortgage payment, when the only delinquency is attributable to late charges assessed on an earlier payment, and the payment is otherwise a full payment for the applicable period and is paid by its due date or within any applicable grace period. The Bureau proposed to implement this prohibition on such late-fee ''pyramiding,'' consistent with the statutory language, in § 1026.34(a)(8)(iii). The Bureau noted that proposed § 1026.34(a)(8)(iii) is consistent with § 1026.36(c)(1)(ii), which similarly prohibits late-fee pyramiding by servicers in connection with a consumer credit transaction secured by a consumer's principal dwelling.

Proposed comment 34(a)(8)(iii)–1 would have provided an illustration of the rule. The Bureau requested comment as to whether additional guidance was needed concerning the application of proposed § 1026.34(a)(8)(iii) to open-end credit plans. The Bureau did not receive any comments addressing these aspects of the proposal. Accordingly, the Bureau is adopting § 1026.34(a)(8)(iii) and comment 34(a)(8)(iii)–1 as proposed.

34(a)(8)(iv) Failure To Make Required Payment

New TILA section 129(k)(3) provides that, if a past due principal balance exists on a high-cost mortgage as a result of a consumer's failure to make one or more required payments, and if permitted by the terms of the loan contract or open-end credit agreement permit, subsequent payments may be applied first to the past due principal balance (without deduction due to late fees or related fees) until the default is cured. The Bureau generally proposed to implement new TILA section 129(k)(3), consistent with the statutory language, in § 1026.34(a)(8)(iv), to clarify the application of the provision to open-end credit plans.

Proposed comment 34(a)(8)(iv)–1 would have provided an illustration of the rule. The Bureau requested comment on this example, including on whether additional guidance was needed concerning the application of proposed § 1026.34(a)(8)(iv) to open-end credit plans. The Bureau did not receive comment specifically regarding proposed § 1026.34(a)(8)(iv), or proposed comment 34(a)(8)(iv)–1, and will adopt § 1026.34(a)(8)(iv) and comment 34(a)(8)(iv)–1 as proposed.

34(a)(9) Payoff Statements

The Bureau proposed a new § 1026.34(a)(9) to implement new section 129(t) of TILA, added by section 1433(d) of the Dodd-Frank Act, which (1) specifically prohibits, with certain exceptions, a creditor or servicer from charging a fee for ''informing or transmitting to any person the balance due to pay off the outstanding balance on a high-cost mortgage;'' and (2) requires payoff balances for high-cost mortgages to be provided within five business days of a request by a consumer or a person authorized by the consumer to obtain such information.

Proposed § 1026.34(a)(9), in implementing section 129(t), would have prohibited a creditor or servicer from charging a fee to a consumer (or a person authorized by the consumer to receive such information) for providing a statement of an outstanding pay off balance due on a high-cost mortgage. It would have allowed, however, as

provided by section 129(t), the charging of a processing fee to cover the cost of providing a payoff statement by fax or courier, so long as such fees do not exceed an amount that is comparable to fees imposed for similar services provided in connection with a non-high-cost mortgage. The creditor or servicer would have been required to make the payoff statement available to a consumer by a method other than by fax or courier and without charge. Prior to charging a fax or courier processing fee, the creditor or servicer would have been required to disclose to the consumer (or a person authorized by the consumer to receive the consumer's payoff information) that payoff statements are otherwise available for free. Under the proposal, a creditor or servicer who has provided payoff statements on a high-cost mortgage to a consumer without charge (other than a processing fee for faxes or courier services) for four times during a calendar year would have been permitted to charge a reasonable fee for providing payoff statements during the remainder of the calendar year. Finally, the proposal would have required payoff statements to be provided by a creditor or servicer within five business days after receiving a request by a consumer for such a statement (or a person authorized by the consumer to obtain such information).[174]

The Bureau sought public comment on what additional guidance would be needed with regard to the fee and timing requirements for the provision of payoff statements for high-cost mortgages under proposed § 1026.34(a)(9). The Bureau received a handful of comments from industry groups generally objecting to the prohibition against charging a fee to a consumer. Specifically, commenters pointed out that producing payoff statements involves an administrative cost for creditors and suggested that prohibiting such fees may lead to higher borrowing costs generally if creditors spread those costs to all borrowers. On the other hand, one consumer group suggested an additional requirement that the amount specified in the payoff statement must remain accurate for 15 days after the statement is mailed.

The Bureau is adopting § 1026.34(a)(9) as proposed. In the Bureau's view, these public comments provided no principled basis for substantive changes to the prohibition and exceptions set forth in the statute.

34(a)(10) Financing of Points and Fees

Section 1433 of the Dodd-Frank Act added to TILA a new section 129(m) prohibiting the direct or indirect financing of (1) any points and fees; and (2) any prepayment penalty payable by the consumer in a refinancing transaction if the creditor or an affiliate of the creditor is the holder of the note being refinanced. Proposed § 1026.34(a)(10) would have implemented new TILA section 129(m).

Proposed § 1026.34(a)(10) would have implemented all aspects of the statute, except that the Bureau omitted the statutory language concerning the financing of prepayment penalties payable by the consumer in a refinancing transaction. The Bureau noted that such penalties are subsumed in the definition of points and fees for § 1026.32 in proposed §§ 1026.32(b)(1)(vi) and (3)(iv). Thus, the prohibition against financing of ''points and fees'' necessarily captures the prohibition against financing of prepayment penalties payable in a refinancing transaction if the creditor or an affiliate of the creditor is the holder of the note being refinanced. Consistent with amended TILA section 103(bb)(4)(D) concerning the financing of credit insurance premiums (which new TILA section 129C(d) generally bans), proposed § 1026.34(a)(10) would have specified that credit insurance premiums are not considered financed when they are calculated and paid in full on a monthly basis.

Proposed comment 34(a)(10)–1 would have clarified that ''points and fees'' for proposed § 1026.34(a)(10) means those items that are required to be included in the calculation of points and fees under §§ 1026.32(b)(1) through (5). Proposed comment 34(a)(10)–1 specified that, for example, in connection with the extension of credit under a high-cost mortgage, a creditor may finance a fee charged in connection with the consumer's receipt of pre-loan counseling under § 1026.34(a)(5) because such a fee would be excluded from points and fees as a bona fide third-party charge.

Proposed comment 34(a)(10)–2 would have provided examples of prohibited financing of points and fees. The proposed comment explained that a creditor directly or indirectly finances points and fees in connection with a high-cost mortgage if, for example, such points or fees are added to the loan balance or financed through a separate note, if the note is payable to the creditor or to an affiliate of the creditor. In the case of an open-end credit plan, a creditor also finances points and fees if the creditor advances funds from the credit line to cover the fees.

The Bureau requested comment on its proposed implementation of new TILA section 129(m). In particular, the Bureau requested comment on whether § 1026.34(a)(10) should prohibit the financing of charges that are not included in the calculation of points and fees, such as bona-fide third party charges (including certain amounts of private mortgage insurance premiums).

One commenter responded to the request for comments regarding whether to include bona-fide third party charges in the financing prohibition; the comment advised against it on the basis that it risked restricting access to credit. The Bureau also received comments from industry generally objecting to the prohibition on financing of points and fees. In particular, these commenters argued that the prohibition would restrict access to credit for low-income consumers without sufficient cash to pay up-front points and fees.

Though the Bureau acknowledges industry's concern regarding low-income borrowers' ability to pay up-front points and fees, it does not believe this provides a sufficient basis to alter the prohibition set forth in the statute. Moreover, the Bureau believes that the prohibition provides enhanced consumer protection because it will prohibit creditors from imposing excessive points and fees in connection with high-cost mortgages by rolling them into the loan balance. Accordingly, the Bureau is adopting § 1026.34(a)(10) and comments 34(a)(10)–1 and 34(a)(10)–2 as proposed.

34(b) Prohibited Acts or Practices for Dwelling-Secured Loans; Structuring Loans To Evade High-Cost Mortgage Requirements

The Bureau proposed revisions to § 1026.34(b) to implement the prohibition on structuring a loan transaction ''for the purpose and with the intent'' to evade the requirements for high-cost mortgages in new section

[174] *See* current § 1026.36(c)(1)(iii), which prohibits a servicer ''[i]n connection with a consumer credit transaction secured by a consumer's principal dwelling'' from failing ''to provide within a reasonable period of time after receiving a request from the consumer * * * an accurate statement of the total outstanding balance * * *.'' The commentary related to this section states that ''it would be reasonable under most circumstances to provide the statement within five business days of receipt of a consumer's request, and that ''[t]his time frame might be longer, for example, when the servicer is experiencing an unusually high volume of refinancing requests.'' *See also* new Section 129G of TILA added by section 1464 of the Dodd-Frank Act, which sets new timing requirements for the delivery of payoff statements for ''home loans'' but does not specifically address high-cost mortgages. It requires a ''creditor or servicer of a home loan'' to ''send an accurate payoff balance within a reasonable time, but in no case more than 7 business days, after the receipt of a written request for such balance from or on behalf of the borrower.'' The Bureau is implementing this provision in its rulemaking on mortgage servicing.

129(r) of TILA, which was added by section 1433(b) of the Dodd-Frank Act. Section 129(r) of TILA specifically prohibits a creditor from taking ''any action in connection with a high-cost mortgage'' to: (1) ''Structure a loan as an open-end credit plan or another form of loan for the purpose and with the intent of evading the provisions of this title,'' which include the high-cost mortgage requirements; or (2) divide a loan into separate parts ''for the purpose and with the intent'' to evade the same provisions.

Prior to the Dodd-Frank Act, open-end credit plans were not within the scope of HOEPA's coverage. Current § 1026.34(b) prohibits structuring a home-secured loan as an open-end plan to evade the requirements of HOEPA. The Dodd-Frank Act amended TILA, however, to include open-end credit plans within the scope of coverage of HOEPA. Nevertheless, as noted, new section 129(r) prohibits the structuring of what would otherwise be a high-cost mortgage in the form of an open-end credit plan, or another form of loan, including dividing the loan into separate parts. Proposed § 1026.34(b) would have implemented this new section by prohibiting the structuring of a transaction that is otherwise a high-cost mortgage as another form of loan, including dividing any loan transaction into separate parts, for the purpose and intent to evade the requirements of HOEPA.

Proposed comment 34(b)–1 would have provided examples of violations of proposed § 1026.34(b): (1) A loan that has been divided into two separate loans, thereby dividing the points and fees for each loan so that the HOEPA thresholds are not met, with the specific intent to evade the requirements of HOEPA; and (2) the structuring of a high-cost mortgage as an open-end home-equity line of credit that is in fact a closed-end home-equity loan to evade the requirement to include loan originator compensation in points and fees for closed-end credit transactions under proposed § 1026.32(b)(1).

The proposal renumbered existing comment 34(b)–1 as comment 34(b)–2 for organizational purposes. Notwithstanding the Dodd-Frank Act's expansion of coverage under HOEPA to include open-end credit plans, the Bureau believed that the guidance set forth in proposed comment 34(b)–2 would be useful for situations where it appears that a closed-end credit transaction has been structured as an open-end credit plan to evade the closed-end HOEPA coverage thresholds. The Bureau proposed certain conforming amendments to proposed comment 34(b)–2, however, for consistency with the Bureau's proposed amendment to the definition of ''total loan amount'' for closed-end mortgage loans. *See* the section-by-section analysis to proposed § 1026.32(b)(6)(i), above.

The Bureau received several comments from consumer groups encouraging an expansive interpretation of the new section 129(r). One specifically suggested additional requirements that all loans that have been divided into two or more loans should be evaluated to determine if they should be considered covered by HOEPA and that all open-end loans should be evaluated in the same manner as closed-end loans if they meet certain criteria. Several commenters also expressed concern over loan terms, such as rate increase after default and ''performance based'' rates that would allow a creditor to disclose an unrealistically low APR and avoid the high-cost mortgage requirements. Consumer advocates also described a practice in which a creditor extends to a consumer an initial, unsecured loan, the proceeds of which are used to pay points and fees associated with a subsequent mortgage loan. The Bureau considered these suggestions. With respect to the comments regarding the scope of the prohibition, the Bureau believes that the proposed language is sufficiently broad to cover loans structured to evade high-cost mortgage requirements. Other provisions in Regulation Z address APR determination and disclosure, and increased interest rates after default are impermissible under § 1026.32(d)(4). In response to the comment describing the practice of making an initial, unsecured loan, the proceeds of which are used to pay points and fees associated with a subsequent mortgage loan, the Bureau has slightly revised comment 34(b)–1.i to reflect that if a creditor structures a loan as two or more loans to evade HOEPA, those loans may constitute an evasion whether made consecutively or at the same time.

The Bureau also received comments from GSEs expressing concern regarding the ability of secondary market purchasers to determine whether a loan has been divided into one or more parts to evade high-cost mortgage requirements. Specifically, these commenters argued that, if an entity purchases only first-lien loans, it does not routinely receive documentation regarding subordinate loans and may have difficulty in uncovering evasion. Particular concern was noted that GSEs are unable to discern a creditor's ''intent'' in making a given loan. The GSE commenters thus requested a rule limiting liability for assignees when they purchase only one obligation.

The Bureau notes the GSEs' concern, but is adopting § 1026.34(b) as proposed. The Bureau recognizes that the expansion of HOEPA coverage to include purchase-money transactions may increase the risk of assignee liability for GSEs and other secondary market purchasers. However, the Bureau does not believe this concern warrants departure from the statute. Since HOEPA's inception, TILA has provided for assignee liability with respect to all claims and defenses the consumer could assert against the creditor unless the assignee could demonstrate, by a preponderance of the evidence, that ''a reasonable person exercising due diligence'' could not determine the loan at issue was a high-cost mortgage. *See* 15 U.S.C. 1641(c). The Dodd-Frank Act did not alter this long-standing provision, but did, however, add the prohibition against dividing a transaction into separate parts for the purpose and with the intent of evading HOEPA. The Bureau thus believes that interpreting TILA section 129(r) to limit liability for GSE purchasers would be inconsistent with Congress's intent to impose a special assignee liability rule for high-cost mortgage.

In addition, the Bureau is not convinced that the GSEs will be unable to adequately control for risk of purchasing mortgages structured to evade HOEPA. While the GSEs raised concerns regarding increased risk of assignee liability, they also noted that creditors are currently required to identify loans with subordinate financing at the time of sale, and must represent and warrant that the subordinate lien loans comply with GSE requirements. In addition, they stated that GSEs are able to request additional documentation for subordinate liens. The Bureau believes these comments indicate that GSEs possess at least some capability to control for risk of purchasing loans that may have been structured to evade HOEPA through their own due diligence.

With respect to the GSEs' claim that there is no way for them to determine whether the creditor's ''intent'' was to evade HOEPA, the Bureau is providing comment 34(b)–1i. to provide guidance on when loans may be deemed structured with the intent to evade HOEPA. Comment 34(b)–1i. provides that a creditor structures a transaction to evade HOEPA if, for example, the creditor structures a loan that would otherwise be a high-cost mortgage as two or more loans, whether made consecutively or at the same time, to

divide the loan fees to avoid the points and fees threshold for high-cost mortgages.

Finally, the final rule incorporates several additional changes. Because of changes to requirements regarding points and fees calculations for open- and closed-end transactions, the final rule removes proposed comment 34(b)–1.ii as unnecessary. In light of the Bureau's decision to create an exemption from HOEPA coverage for transactions to finance the initial construction of a dwelling, the Bureau is substituting a different comment 34(b)–1.ii to clarify that a creditor does not structure a transaction in violation of § 1026.34(b) when a loan to finance the initial construction of a dwelling may be permanently financed by the same creditor, such as a ''construction-to-permanent'' loan, and the construction phase and the permanent phase are treated as separate transactions. The final rule adopts the other parts of § 1026.34(b) and related commentary as proposed.

Section 1026.36 Prohibited Acts or Practices in Connection With Credit Secured by a Dwelling

36(k) Negative Amortization Counseling

The Dodd-Frank Act added two general requirements that creditors must fulfill prior to extending credit to a consumer secured by a dwelling or residential real property that includes a dwelling, other than a reverse mortgage, that may result in negative amortization. The first, found in new TILA 129C(f)(1), requires creditors to provide consumers with a disclosure that, among other things, describes negative amortization and states that negative amortization increases the outstanding principal balance of the account and reduces a consumer's equity in the property. The Bureau is not implementing this requirement in the current rule, but is planning to implement it as part of its 2012 TILA–RESPA proposal. The second provision, found in new TILA 129C(f)(2), requires creditors to obtain sufficient documentation demonstrating that a first-time borrower has received homeownership counseling from a HUD-certified organization or counselor, prior to extending credit in connection with a residential mortgage loan that may result in negative amortization. As noted in the preamble of the proposed HOEPA rule, because of the similarity of TILA 129C(f)(2) to the counseling requirement for high-cost mortgages, the Bureau is including the implementation of this counseling provision as part of this rule.

The Bureau proposed § 1026.36(k) to implement the general counseling requirement for first-time borrowers of mortgages that may result in negative amortization consistent with the statutory language. In addition to the general counseling requirement in proposed § 1026.36(k)(1), pursuant to its authority under TILA section 105(a), the Bureau proposed to include two additional provisions in §§ 1026.36(k)(3) and (4), consistent with the requirements for high-cost mortgage counseling. Proposed § 1026.36(k)(3) would have addressed steering by creditors to particular counselors or counseling organizations and proposed § 1026.36(k)(4) would have required the provision of a list of counselors to consumers. In addition to requesting comments on specific aspects of the counseling requirement for negative amortization loans, the Bureau requested comment on whether it would minimize compliance burdens if the Bureau conformed the counseling requirements for mortgages that may result in negative amortization with the counseling requirements for high-cost mortgages, despite differences in statutory language. The Bureau did not receive any comments suggesting that conforming the counseling requirements would be beneficial. As a result, the Bureau is finalizing § 1026.36(k) substantially as proposed, but with certain revisions, as discussed in greater detail below.

36(k)(1) Counseling Required

Proposed § 1026.36(k)(1) would have implemented the statutory requirement that a creditor shall not extend credit to a first-time borrower in connection with a residential transaction secured by a dwelling (with exceptions for reverse mortgages and mortgages secured by timeshare plans) that may result in negative amortization, unless the creditor receives documentation that the consumer has obtained counseling from a HUD-certified or approved counselor or counseling organization.[175] The Bureau omitted from the proposal the statutory language limiting the requirement for counseling to a residential mortgage loan that may result in negative amortization ''that is not a qualified mortgage'' because a qualified mortgage by definition does not permit a payment schedule that results in an increase of the principal balance under new TILA 129C(b)(2)(A).

Proposed comment 36(k)(1)–1 would have provided that counseling organizations or counselors certified or approved by HUD to provide the counseling required by § 1026.36(k)(1) include organizations and counselors that are certified or approved by HUD pursuant to section 106(e) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x(e)) or 24 CFR part 214, unless HUD determines otherwise.

The Bureau also proposed several additional comments to provide further clarification. Proposed comment 36(k)(1)–2 would have addressed the content of counseling to ensure that the counseling is useful and meaningful to the consumer with regard to the negative amortization feature of the loan. Specifically, proposed comment 36(k)(1)–2 would have required that homeownership counseling pursuant to § 1026.36(k)(1) include information regarding the risks and consequences of negative amortization. The Bureau noted in the preamble of the proposal that it believes that a requirement that the counseling address the negative amortization feature of a loan is consistent with the purpose of the statute.

To help facilitate creditor compliance with proposed § 1026.36(k)(1), proposed comment 36(k)(1)–3 would have provided examples of documentation that demonstrate that a consumer has received the required counseling, such as a certificate, letter, or email from a HUD-certified or -approved organization or counselor indicating the consumer has received counseling.

Finally, proposed comment 36(k)(1)–4 would have addressed when a creditor may begin to process the application for a mortgage that may result in negative amortization. As with high-cost mortgage counseling, the Bureau proposed that prior to receiving documentation of counseling a creditor may not extend a mortgage to a consumer that may result in negative amortization but may engage in other activities, such as processing an application for such a mortgage.

The Bureau solicited comment on the proposed general requirement and accompanying comments. A significant number of consumer groups strongly objected to the proposed counseling requirement for first-time borrowers of negative amortization loans as inadequate. These commenters noted that negative amortization loans are very high-risk and difficult for consumers to understand. Commenters asked the

[175] As noted in the preamble to the proposal, the Bureau is exercising its authority under section 105(a) of TILA Act to allow counseling to be provided by HUD-approved counselors or organizations, in addition to HUD-certified counselors or organizations, as is specifically required by TILA section 129C(f)(2). The Bureau is proposing to exercise its authority to provide flexibility and to facilitate compliance by ensuring greater availability of competent housing counselors for the required counseling.

Bureau to ban negative amortization loans entirely, or at least to ban negative amortization loans secured by a consumer's principal dwelling. Alternatively, commenters asked the Bureau to require counseling for all borrowers of negative amortization loans, rather than just first-time borrowers. Some commenters also requested that the Bureau set further standards for negative amortization counseling, such as requiring the counseling to include review of loan terms and household finances. A few commenters asked the Bureau to ban negative amortization specifically for high-cost mortgages.

The Bureau is finalizing § 1026.36(k)(1) as proposed. While the Bureau agrees that negative amortization loans are inherently more risky than fully amortizing loans, the Bureau also notes that Congress considered the risks associated with these loans, but did not ban these loans in connection with the comprehensive mortgage reforms contained in title XIV of the Dodd-Frank Act. Instead, Congress has made the determination to address the increased risk associated with these mortgages by other means, such as requiring additional disclosures and counseling for first-time borrowers, and preventing loans containing negative amortization from being qualified mortgages. The Bureau does not believe it is appropriate to ban negative amortization loans more broadly in the context of this rulemaking to implement section 1414. At this time, the Bureau does not believe it is necessary to set any further standards for negative amortization counseling, beyond those in the proposal. As noted above, the Bureau proposed that the required counseling must address the risks and consequences of negative amortization, and the Bureau is now adopting that additional requirement in this final rule. Finally, in response to comments asking the Bureau to ban negative amortization for high-cost mortgages, the Bureau notes that high-cost mortgages are already prohibited from negatively amortizing, pursuant to § 1026.32(d)(2).

36(k)(2) Definitions

TILA section 129C(f) does not define the terms, ''first-time borrower'' and ''negative amortization.'' To afford creditors guidance on the circumstances under which § 1026.36(k)(1) applies, proposed § 1026.36(k)(2) would have provided definitions of these two key terms. Specifically, proposed § 1026.36(k)(2)(i) would have stated that a first-time borrower means a consumer who has not previously received a closed-end mortgage loan or open-end credit plan secured by a dwelling. Proposed § 1026.36(k)(2)(ii) would have provided that negative amortization means a payment schedule with regular periodic payments that cause the principal balance to increase. The Bureau did not receive comments on either of these definitions, and is finalizing them as proposed.

36(k)(3) Steering Prohibited

TILA section 129C(f)(2) does not address potential steering of consumers by creditors to particular counselors. Consistent with its proposal to prohibit steering for high-cost mortgage counseling in § 1026.34(a)(5)(vi), the Bureau proposed in § 1026.36(k)(3) to prohibit a creditor that extends mortgage credit that may result in negative amortization from steering or otherwise directing a consumer to choose a particular counselor or counseling organization for the counseling required by proposed § 1026.36(k). The Bureau proposed this prohibition pursuant to its authority under TILA section 105(a). Proposed comment 36(k)(3)–1 references the proposed comments in 34(a)(5)(vi)–1 and –2, which provide an example of an action that constitutes steering and an example of an action that does not constitute steering. The Bureau did not receive comment on this provision, and is therefore finalizing it as proposed.

36(k)(4) List of Counselors

Proposed Provisions Not Adopted

Also consistent with its proposal in § 1026.34(a)(5)(vii) for high-cost mortgage counseling, the Bureau proposed in § 1026.36(k)(4)(i) to add a requirement that a creditor provide a list of counselors to a consumer for whom counseling is required under proposed § 1026.36(k) and proposed in § 1026.36(k)(4)(ii) a safe harbor for a creditor that provides a list of counselors pursuant to the obligation in Regulation X § 1024.20. However, as with the parallel requirement related to high-cost mortgages, the Bureau is not finalizing this requirement because it will essentially duplicate the counseling list requirement finalized in § 1024.20, which will require a counseling list to be provided to all applicants of federally related mortgage loans, including negative amortization mortgages.

VI. Effective Date

This final rule is effective on January 10, 2014. The rule applies to transactions for which the creditor or lender received an application on or after that date. As discussed above in part III, the Bureau believes that this approach is consistent with the timeframes established in section 1400(c) of the Dodd-Frank Act and, on balance, will facilitate the implementation of the rules' overlapping provisions, while also affording creditors sufficient time to implement the more complex or resource-intensive new requirements.

In response to the proposal, the Bureau received a number of comments from industry referencing the other title XIV rules and indicating that implementing so many new requirements at the same time would create a significant cumulative burden for creditors. Many of these commenters suggested that the Bureau provide as late an effective date as possible, with many commenters suggesting periods of between18 and 24 months, in order to have time to adjust computerized systems, compliance procedures, and train staff. While a few commenters suggested sequenced implementation dates for all of the title XIV rulemakings, other commenters asked the Bureau to provide a longer implementation date but to avoid implementing the regulations in a piecemeal fashion. One industry association commenter suggested that the Bureau employ an approach similar to that taken for the 2012 TILA–REPSA proposal, and issue a rule temporarily delaying implementation of the HOEPA rule.

For the reasons already discussed above, the Bureau believes that an effective date of January 10, 2014 for this final rule and most provisions of the other title XIV final rules will ensure that consumers receive the protections in these rules as soon as reasonably practicable, taking into account the timeframes established by the Dodd-Frank Act, the need for a coordinated approach to facilitate implementation of the rules' overlapping provisions, and the need to afford creditors and other affected entities sufficient time to implement the more complex or resource-intensive new requirements.

VII. Dodd-Frank Act Section 1022(b)(2)

In developing the final rule, the Bureau has considered the regulation's potential benefits, costs, and impacts.[176] The proposal set forth a preliminary analysis of these effects, and the Bureau requested and received comments on this analysis. In addition, the Bureau

[176] Section 1022(b)(2)(A) of the Dodd-Frank Act calls for the Bureau to consider the potential benefits and costs of a regulation to consumers and covered persons, including the potential reduction of access by consumers to consumer financial products or services; the impact on depository institutions and credit unions with $10 billion or less in total assets as described in section 1026 of the Dodd-Frank Act; and the impact on consumers in rural areas.

has consulted or offered to consult with the prudential regulators, the Federal Trade Commission, HUD, FHFA, and USDA in connection with this rulemaking, including regarding consistency with any prudential, market, or systemic objectives administered by such agencies.[177]

As discussed above, HOEPA currently addresses potentially harmful practices in refinancing and closed-end home-equity mortgages. Loans that meet HOEPA's thresholds are subject to restrictions on loan terms as well as to special disclosure requirements intended to ensure that consumers in high-cost mortgages understand the features and implications of such loans. Borrowers with high-cost mortgages also have enhanced remedies for violations of the law. The Dodd-Frank Act expanded the types of loans potentially covered by HOEPA to include purchase-money mortgages and HELOCs secured by a consumer's principal dwelling. The Dodd-Frank Act also expanded the protections associated with high-cost mortgages, including by adding new restrictions on loan terms, extending the requirement that a creditor verify a consumer's ability to repay to a HELOC, and adding a requirement that consumers receive homeownership counseling before high-cost mortgages may be extended.

In this rulemaking, the Bureau is amending Regulation Z to implement the changes to HOEPA set forth in the Dodd-Frank Act. In addition to the amendments related to high-cost mortgages, the Bureau is also finalizing an amendment to Regulation Z and an amendment to Regulation X to implement amendments made by sections 1414(a) and 1450 of the Dodd-Frank Act to TILA and to RESPA related to homeownership counseling for other types of mortgages, respectively.

In the proposal, the Bureau generally requested comment on the section 1022 impact analysis set forth therein. Among other things, the Bureau requested comment on the use of the data described in the proposal and sought additional data regarding the potential benefits, costs, and impacts of the proposal. Industry commenters raised general concerns that expanding the set of loans potentially subject to HOEPA, changing the HOEPA coverage thresholds, and imposing additional restrictions on high-cost mortgages could decrease access to credit. Several commenters stated that few creditors are willing to make high-cost mortgages because of the reputational, regulatory, and legal risks so that expanding HOEPA coverage will reduce access to credit. In contrast, consumer groups generally did not raise similar concerns regarding access to credit as a result of expanding the set of loans potentially subject to HOEPA and changing the HOEPA coverage thresholds. Some consumer groups further suggested stronger protections for consumers with high-cost mortgages were warranted.

Both industry and consumer groups commented that the Bureau should collect additional data to analyze the potential impacts of the proposed rule and to assess the empirical bases for implementing or deviating from statutory thresholds. For example, both manufactured housing industry commenters and consumer groups argued that the Bureau should collect additional data to inform its specification of APR and points-and-fees thresholds that differ by collateral type and loan size.

In addition to soliciting comment generally on the impact analysis, the proposal solicited comment on and suggestions for additional data regarding specific aspects of the proposal. For example, the Bureau requested information concerning how provisions in the rule may affect the share of HELOCs that would meet the HOEPA thresholds and the costs and benefits of requiring that the list of homeownership counseling providers for loans covered by Regulation X to be given to applicants for all federally related mortgages rather than to only applicants for purchase-money mortgages. In addition, the Bureau requested information and data on the proposal's potential impact on consumers in rural areas specifically as well as the proposal's potential impact on depository institutions and credit unions with total assets of $10 billion or less. The Bureau generally received limited detail and data in response to many of these specific requests. The comments are discussed throughout this preamble and below in the context of the analysis of the benefits and costs of the respective provisions of the final rule.[178]

A. Provisions To Be Analyzed

The discussion below considers the potential benefits, costs, and impacts to consumers and covered persons of key provisions of the final rule, as well as certain alternatives considered, which include:

1. Expanding the types of transactions potentially covered by HOEPA to include purchase-money mortgages and HELOCs;
2. Revising the existing HOEPA APR and points-and-fees thresholds to implement Dodd-Frank Act requirements, as well as modifying the APR and points-and-fees calculations to determine whether a transaction is a high-cost mortgage;
3. Adding a prepayment penalty coverage threshold;
4. Adding and revising several restrictions and requirements on loan terms and practices for high-cost mortgages; [179] and
5. Implementing two separate homeownership counseling-related provisions mandated by the Dodd-Frank Act, namely, generally requiring lenders to provide a list of homeownership counseling organizations to applicants for federally related mortgages subject to RESPA, and requiring creditors to obtain documentation that a first-time borrower of a negatively amortizing loan has received homeownership counseling.

The analysis considers the benefits and costs of certain provisions together where there are substantially similar benefits and costs. For example, expanding the types of loans potentially subject to HOEPA coverage to include purchase-money mortgages and HELOCs would likely expand the number of high-cost mortgages. The overall impact of this expansion of coverage is generally discussed in the aggregate. In other cases, the analysis considers the costs and benefits of each provision separately. When relevant, the discussion of these five categories of provisions incorporates the comments and data the Bureau received in response to its proposal and considers the costs and benefits of changes made between the proposal and final rule.

[177] Section 1022(b)(2)(B) of the Dodd-Frank Act requires the Bureau to engage in such consultation ''prior to proposing a rule and during the comment process.''

[178] An exception is comments received on the proposed transaction coverage rate. Numerous commenters raised concerns regarding this provision. As discussed above, however, the Bureau is not implementing the proposed provisions relating to the transaction coverage rate in this final rule. Consequently, comments on the costs and benefits of the transaction coverage rate are not discussed below.

[179] These restrictions and requirements include requiring that a creditor receive certification that a HOEPA consumer has received pre-loan counseling from an approved homeownership counseling organization; prohibiting creditors and brokers from recommending default on a loan to be refinanced with a high-cost mortgage; prohibiting creditors, servicers, and assignees from charging a fee to modify, defer, renew, extend, or amend a high-cost mortgage; limiting the fees that can be charged for a payoff statement; banning prepayment penalties; substantially limiting balloon payments; and requiring that a creditor assess a consumer's ability to repay a HELOC.

The analysis relies on data that the Bureau has obtained, which include updated versions of data analyzed in the proposed rule such as data on 2011 mortgages collected under HMDA that were released after publication of the proposed rule and revised data on nondepository mortgage originators from the National Mortgage Licensing System.[180] The analysis also draws on evidence of the impact of State anti-predatory lending statutes that often place additional or tighter restrictions on mortgages than those required by HOEPA prior to the Dodd-Frank Act amendments. However, the Bureau notes that, in some instances, there are limited data that are publicly available with which to quantify the potential costs, benefits, and impacts of the final rule. For example, data on the terms and features of HELOCs are more limited and less available than data on closed-end mortgages. The Bureau is not aware of and commenters did not provide any systematic and representative data on the terms and features of HELOCs. Moreover, some potential costs and benefits, such as the value of homeownership counseling, or reduced likelihood of an unanticipated fee or change in payments, are extremely difficult to quantify and to measure. Therefore, the analysis generally provides a qualitative discussion of the benefits, costs, and impacts of the final rule.

B. Baseline for Analysis

The HOEPA amendments are self-effectuating, and the Dodd-Frank Act does not require the Bureau to adopt a regulation to implement these amendments. Thus, many costs and benefits of the final rule considered below would arise largely or entirely from the statute, not from the final rule. The final rule would provide substantial benefits compared to allowing the HOEPA amendments to take effect alone by clarifying parts of the statute that call for interpretation, such as how to determine whether a HELOC is a high-cost mortgage and by creating certain exemptions. Greater clarity on parts of the statute that call for interpretation should reduce the compliance burdens on covered persons by reducing costs for attorneys and compliance officers and also by reducing the litigation risk and potential liability creditors and assignees of high-cost mortgages would face in the absence of regulatory guidance. In addition, the Bureau believes that exempting construction loans, for example, should reduce burden on not only covered persons that originate these types of loans but also on consumers because potential HOEPA coverage of these loans may have led to sharper reductions (relative to other types of loans) in the availability of construction loans. In this light, the costs that the regulation would impose beyond those imposed by the statute itself are likely to be at most minimal.

Section 1022 of the Dodd-Frank Act permits the Bureau to consider the benefits and costs of the rule solely compared to the state of the world in which the statute takes effect without an implementing regulation. The Bureau has nonetheless also considered the potential benefits, costs, and impacts of the major provisions of the final rule against a pre-statutory baseline (*i.e.,* the benefits, costs, and impacts of the relevant provisions of the Dodd-Frank Act and the regulation combined).[181] There is one exception: The Bureau does not discuss below the benefits and costs of determining whether a loan is a high-cost mortgage, *e.g.,* the costs of computer systems and software, employee training, outside legal advice, and similar costs potentially necessary to determine whether a loan is a high-cost mortgage.[182] One trade association commenter asserted that the Bureau's analysis of the compliance burden due to the expansion of HOEPA to purchase-money mortgages and HELOCs is incomplete in part because it did not consider the costs of determining whether a loan is a high-cost mortgage. The trade association noted that these costs would now be incurred for all purchase-money mortgages and HELOCs, including those that are ultimately not originated or that are modified to avoid classification as a high-cost mortgage. As noted in its preliminary section 1022 analysis, the Bureau does not consider these benefits and costs because these changes are required by the Dodd-Frank Act's amendments to HOEPA. The Bureau's discretion to exempt broad categories of loans from HOEPA coverage is limited, and the Bureau does not believe such exemptions are consistent with the mandate of the statute. The Bureau has discretion in future rulemakings to choose the most appropriate baseline for each particular rulemaking.

A few industry commenters argued that the analysis did not adequately consider the proposal's costs and benefits in the context of related rulemakings including the cumulative effects of these rules on consumers and systemic risk. The Bureau, however, interprets the consideration required by section 1022(b)(2)(A) to be focused on the potential benefits, costs, and impacts of the particular rule at issue, and to not include those of other pending or potential rulemakings. Moreover, the commenters do not suggest a reliable method for assessing cumulative impacts of multiple rulemakings. The Bureau believes that there are multiple reasonable approaches for conducting the consideration called for by section 1022(b)(2)(A) and that the approach it has taken in this analysis is reasonable and that, particularly in light of the difficulties of reliably estimating certain benefits and costs, it has discretion to decline to undertake additional or different forms of analysis. The Bureau notes that it has coordinated the development of the final rule with its other rulemakings and has, as appropriate, discussed some of the significant interactions of the rulemakings.

One commenter stated that the Bureau did not sufficiently weigh the negative effects of the proposed rule against the likely benefits as measured by the goal of U.S. financial stability. The Bureau notes that, as discussed in this 1022(b)(2) analysis and other parts of the preamble, it has carefully taken into account the potential negative effects of the proposed rule and has accordingly added exceptions and other provisions to mitigate these potential negative effects while preserving the benefits of the rule within the constraints mandated by Congress.

[180] The Bureau noted in its Summer 2012 mortgage proposals that it sought to obtain additional data to supplement its consideration of the rulemakings, including additional data from the National Mortgage Licensing System (NMLS) and the NMLS Mortgage Call Report, loan file extracts from various lenders, and data from the pilot phases of the National Mortgage Database. Each of these data sources was not necessarily relevant to each of the rulemakings. The Bureau used the additional data from NMLS and NMLS Mortgage Call Report data to better corroborate its estimate of the contours of the non-depository segment of the mortgage market. The Bureau has received loan file extracts from three lenders, but at this point, the data from one lender is not usable and the data from the other two is not sufficiently standardized nor representative to inform consideration of the final rules. Additionally, the Bureau has thus far not yet received data from the National Mortgage Database pilot phases. The Bureau also requested that commenters submit relevant data. All probative data submitted by commenters are discussed in this document.

[181] The Bureau chose as a matter of discretion to consider costs and benefits of provisions that are required by the Dodd-Frank Act to inform the rulemaking more completely.

[182] Some States have anti-predatory lending statutes that provide additional restrictions on mortgage terms and features beyond those under HOEPA. *See* 74 FR 43232, 43244 (Aug. 26, 2009) (surveying State laws that are coextensive with HOEPA). In general, State statutes that overlap and/or extend beyond the final rule would be expected to reduce both its costs and its benefits.

C. Coverage of the Final Rule

HOEPA. The provisions of the final rule that relate to high-cost mortgages apply to any consumer credit transaction that meets one of the HOEPA thresholds and that is secured by the consumer's principal dwelling, including both closed-end credit transactions (including purchase-money mortgages) and open-end credit plans (*i.e.,* home-equity lines of credit, or HELOCs), but not to reverse mortgages, transactions to finance the initial construction of a dwelling, transactions originated by a Housing Finance Agency, or transactions originated under the United States Department of Agriculture's Rural Development Section 502 Direct Loan Program.

In this part of this Supplementary Information, the term ''creditor'' is used generally to describe depository institutions, credit unions, and independent mortgage companies that extend mortgage loans, though in places the discussion distinguishes between these types of creditors. When appropriate, this part discusses affected persons other than creditors, such as mortgage brokers and servicers. For example, as required by the Dodd-Frank Act, the restrictions on loan modification or deferral fees and fees for payoff statements would apply to mortgage servicers. In addition, the Bureau is extending the prohibition on recommended default to mortgage brokers.

Additional Counseling Provisions. The requirement that lenders provide mortgage applicants a list of homeownership counseling organizations applies to applications for a loan covered by RESPA including purchase-money mortgages, subordinate mortgages, refinancings, closed-end home-equity mortgages, and open-end credit plans. The negative amortization counseling provision applies only to closed-end credit transactions that are made to first-time borrowers, are secured by a dwelling, and may result in negative amortization. These counseling-related provisions do not apply to reverse mortgages or to transactions secured by a consumer's interest in a timeshare plan (as described in 11 U.S.C. 101(53D)).

D. Potential Benefits and Costs to Consumers and Covered Persons

1. Expanding the Types of Loans Potentially Subject to HOEPA Coverage

Expanding the types of loans potentially subject to HOEPA coverage to include purchase-money mortgages and HELOCs would increase the number of loans potentially subject to HOEPA coverage and as a result, almost certainly, the number of closed-end mortgages and HELOCs classified as high-cost mortgages. Data collected under HMDA offer a rough illustration of the scope of the expansion of loans potentially covered by HOEPA.[183] Home-improvement and refinance loans accounted for 66 percent of closed-end mortgages secured by a principal dwelling reported in the 2011 HMDA data.[184] Therefore, the data suggest that about 34 percent of home-secured closed-end mortgages in 2011 were not potentially subject to HOEPA coverage because they were purchase-money mortgages.[185] If one additionally considers HELOCs, it is likely that closer to 42 percent of all mortgages (*i.e.,* closed-end mortgages and HELOCs) in 2011 were not eligible for HOEPA coverage.[186] The rule would expand the types of loans potentially subject to HOEPA coverage to essentially all closed-end mortgages and open-end credit plans secured by a principal dwelling, except reverse mortgage transactions, transactions to finance the initial construction of a dwelling, transactions originated by a Housing Finance Agency, or transactions originated under the United States Department of Agriculture's Rural Development Section 502 Direct Loan Program.[187]

The Bureau expects, however, that only a small fraction of loans would qualify as high-cost mortgages under the final rule and that few creditors would make a large number of high-cost mortgages. The Bureau's analysis of loans reported under HMDA suggests that the share of all closed-end mortgages for creditors that report under HMDA might increase from about 0.04 percent under the current thresholds to between 0.1 to 0.3 percent of loans under the revised thresholds.[188] Based on analysis of data from HMDA and from depositories' Reports of Condition and Income (Call Reports) and statistical extrapolation to non-reporting entities, the Bureau estimates that about 6–7 percent of depository institutions made any closed-end high-cost mortgages in 2011 under the current HOEPA thresholds, and that this likely would have been approximately 10 percent if the revised thresholds had been in place.[189] Many of these creditors are predicted to make few high-cost mortgages: The share of depository institutions that make ten or more high-cost mortgages is estimated to increase from less than 1 percent under the current thresholds to about 2 percent under the final rule.[190] Similarly, the

[183] The Home Mortgage Disclosure Act (HMDA), enacted by Congress in 1975, as implemented by the Bureau's Regulation C requires lending institutions annually to report public loan-level data regarding mortgage originations. For more information, see *http://www.ffiec.gov/hmda.* The illustration is not exact because not all mortgage creditors report under HMDA. The HMDA data capture roughly 90–95 percent of lending by the Federal Housing Administration and 75–85 percent of other first-lien home loans. Robert B. Avery, Neil Bhutta, Kenneth P. Brevoort & Glenn B. Canner, *The Mortgage Market in 2011: Highlights from the Data Reported under the Home Mortgage Disclosure Act,* Fed. Res. Bull. (forthcoming), at n.2.

[184] As noted above, the analysis of the final rule uses updated data relative to the proposal. For example, the analysis of the proposal relied on 2010 HMDA data, since 2011 HMDA were not yet available.

[185] The share of closed-end originations reported under HMDA that were purchase-money mortgages was somewhat lower in 2011 than in most preceding years. The share ranged between 43 percent and 47 percent of originations over the 2004–2008 period before it fell to 31 percent in 2009. The share changed more substantially in earlier years, when it declined from 59 percent in 2000 to 26 percent in 2003. Robert B. Avery, Neil Bhutta, Kenneth P. Brevoort & Glenn B. Canner, *The Mortgage Market in 2011: Highlights from the Data Reported under the Home Mortgage Disclosure Act,* Fed. Res. Bull. (forthcoming), Table 3.B.

[186] Experian-Oliver Wyman's analysis of credit bureau data indicates that there were roughly 13 percent as many HELOC originations in 2011 as there were originations of closed-end mortgage or home equity loans. Specifically, Experian-Oliver Wyman estimated that there were roughly 6.4 million mortgages and 418,000 home equity loans originated in 2011 compared with about 909,000 HELOC originations. The estimate of 42 percent assumes that the fraction of closed-end originations that were purchase-money mortgages among creditors that did not report under HMDA was comparable to the estimated 34 percent for HMDA reporters. More information about the Experian-Oliver Wyman quarterly Market Intelligence Report is available at *http://www.marketintelligencereports.com.*

[187] The estimates of the shares of mortgages potentially subject to HOEPA exclude construction loans, which are not reported under HMDA. Similarly, the estimates likely exclude reverse mortgages because these mortgages generally are not reported under HMDA.

[188] These estimates may overstate the extent to which high-cost mortgage lending may increase under the revised thresholds. In particular, the estimate of 0.04 percent of loans that are currently classified as high-cost mortgages in HMDA is based on the HOEPA flag in those data. This estimate of the current share of high-cost mortgages rises to nearly 0.06 percent if the fraction is estimated in an approach comparable to that for projection of the share of loans that exceed the revised thresholds.

[189] Every national bank, State member bank, and insured nonmember bank is required by its primary Federal regulator to file consolidated Reports of Condition and Income, also known as Call Report data, for each quarter as of the close of business on the last day of each calendar quarter (the report date). The specific reporting requirements depend upon the size of the bank and whether it has any foreign offices. For more information, see *http://www2.fdic.gov/call_tfr_rpts/.*

[190] These estimates of creditors that make any or more than 10 high-cost mortgages under the final rule assume that some lenders avoid making high-cost mortgage loans. In particular, these estimates assume that lenders that are estimated to have not made any high-cost mortgages 2009–2011 do not originate loans that exceed the revised HOEPA thresholds.

share of non-depository creditors for which high-cost mortgages comprise more than 1 percent of all closed-end originations is estimated to rise from 5 percent to 7 percent.[191] Finally, although it is difficult to estimate precisely the share of HELOCs that will meet the HOEPA thresholds, the effect of the final rule on creditors' businesses is likely limited because open-end lending generally comprises a small fraction of creditors' lending portfolios. Based on the estimated shares of high-cost mortgages for creditors, the Bureau considered creditors' potential revenue losses under the assumption that creditors made no high-cost mortgages, which is likely a conservative assumption if lenders are able to substitute loans that do not exceed the HOEPA thresholds in place of a high-cost mortgage. As discussed in more detail below, these estimates suggest that the effect of the final rule would be minor for the vast majority of creditors.

Some industry commenters argued that, as a result of HOEPA's expansion to include purchase-money transactions, HOEPA would apply to construction loans, a large fraction of which would be classified as high-cost mortgages because these loans typically have higher fees and APR. In addition, manufactured housing creditors expressed concerns that a substantial fraction of loans that they originate would exceed the HOEPA thresholds. Those concerns are addressed in detail below.

a. Benefits and Costs to Consumers

The Bureau believes that the benefits and costs of expanding the types of loans potentially subject to HOEPA coverage, and in turn the likely number of high-cost mortgages, should be similar qualitatively to the benefits and costs of current HOEPA provisions.[192] The Bureau believes that these benefits likely include improving some applicants' and consumers' understanding of the terms and features of a given high-cost mortgage as a result of the enhanced disclosures required for high-cost mortgages and as a result of the counseling requirement.[193] In addition, the rule would restrict or prohibit loan terms such as prepayment penalties and, in many cases, balloon payments whose risks may be difficult for some consumers to evaluate.[194] Improving consumers' understanding of loan terms and such restrictions on loan terms could reduce the likelihood that a HOEPA consumer faces a sizable, unanticipated fee or increase in payments.

Improving consumers' understanding of a given loan would likely increase some consumers' ability—and potentially their propensity—to shop for a mortgage. A greater ability to shop could have additional benefits to consumers if, as a consequence, consumers shop more extensively and select a more favorable mortgage (which may be a loan that does not meet the HOEPA thresholds) or if consumers forgo taking out any mortgage, if none would likely be affordable. At least for some consumers, obtaining information in the process of choosing a mortgage may be costly. These costs could include the time and effort of obtaining additional mortgage offers, trying to understand a large number of loan terms, and—particularly for an adjustable-rate loan—assessing the likelihood of various future contingencies.

A consumer who finds shopping for and understanding loan terms difficult or who needs to make a decision in a short timeframe, for example, may select a mortgage with less favorable loan terms than he or she could qualify for because the costs of shopping exceed what the consumer perceives to be the expected savings, reduced risk, or other benefits that could be realized if shopping resulted in the choice of another mortgage. The Bureau expects that the final rule would reduce the costs of understanding the loan terms for some high-cost loan applicants through enhanced disclosures and counseling. In doing so, the final rule could benefit applicants who opt, based on better information, not to take out a high-cost mortgage.

It appears that many consumers do not shop extensively when selecting a mortgage. A 2012 survey by Fannie Mae found that nearly 40 percent of mortgage consumers received offers from only one creditor when selecting their current mortgage.[195] Given the estimated benefits to a consumer from shopping, this suggests that consumers find the time and effort of additional shopping costly; they underestimate the potential value from shopping; or both.[196]

Some mortgage consumers appear to have difficulty understanding or at least recalling details of their mortgage, particularly the terms and features of adjustable-rate mortgages.[197] Improved information about loan terms may be especially beneficial in the case of high-cost mortgages. At least along some dimensions, the types of consumers who may be less certain about their mortgage terms are also the types of consumers who are more likely to have taken out a subprime loan.[198] In addition, focus groups suggest that many subprime consumers perceive their choice set as limited or experience a sense of desperation.[199] Consumers

[191] These estimates are based on the Bureau's analysis of mortgage lending by non-depository institutions based on HMDA data and data from the National Mortgage Licensing System.

[192] As discussed below, the Bureau believes that the magnitude of the benefits and costs of HOEPA coverage are generally expected to increase under the final rule due to, for instance, new and revised restrictions and requirements on loan terms and origination practices for high-cost mortgages.

[193] The Bureau is not aware of in-depth empirical analyses of the benefits or costs to consumers of the current HOEPA provisions specifically. In contrast, several studies have assessed the impacts of State anti-predatory lending laws and, where relevant, findings of these studies are discussed below.

[194] As discussed in the preamble as well as below, balloon payments are generally prohibited for high-cost mortgages but would be permitted for short-term bridge loans made in connection with the acquisition of a new dwelling and for certain loans made by specific categories of creditors serving rural or underserved areas.

[195] Fannie Mae, ''Mortgage Shopping: Are Borrowers Leaving Money on the Table?,'' November 27, 2012 *available at http://www.fanniemae.com/resources/file/research/housingsurvey/pdf/nhsq22012presentation.pdf.* This finding is broadly consistent with information obtained from creditors through outreach and with earlier studies that suggest roughly 20–30 percent of consumers contacted only one creditor in shopping for a mortgage and that a similar fraction considered only two lenders. *See, e.g.,* Jinkook Lee & Jeanne M. Hogarth, *Consumer Information Search for Home Mortgages: Who, What, How Much, and What Else?,* 9 Fin. Serv. Rev. 277 (2000); James M. Lacko & Janis K. Pappalardo, *The Effect of Mortgage Broker Compensation Disclosures on Consumers and Competition: A Controlled Experiment* (Federal Trade Commission Bureau of Economics Staff report, February 2004), *http://www.ftc.gov/be/workshops/mortgage/articles/lackopappalardo2004.pdf.*

[196] Susan E. Woodward & Robert E. Hall, *Diagnosing Consumer Confusion and Sub-Optimal Shopping Effort: Theory and Mortgage-Market Evidence* (Nat'l Bureau of Econ. Research, Working Paper No. 16007, 2010), *available at www.nber.org/papers/w16007.*

[197] *See* Brian Bucks & Karen Pence, *Do Borrowers Know Their Mortgage Terms?,* 64 J. Urb. Econ. 218 (2008); James M. Lacko & Janis K. Pappalardo, *Improving Consumer Mortgage Disclosures: An Empirical Assessment of Current and Prototype Disclosure Forms* (Federal Trade Commission Bureau of Economics Staff Report, June 2007), *http://www.ftc.gov/os/2007/06/P025505MortgageDisclosureReport.pdf* and Fannie Mae, ''Mortgage Shopping: Are Borrowers Leaving Money on the Table?,'' November 27, 2012 *available at http://www.fanniemae.com/resources/file/research/housingsurvey/pdf/nhsq22012presentation.pdf.*

[198] *See* Brian Bucks & Karen Pence, *Do Borrowers Know Their Mortgage Terms?,* 64 J. Urb. Econ. 218 (2008).

[199] *See* James M. Lacko & Janis K. Pappalardo, *Improving Consumer Mortgage Disclosures: An Empirical Assessment of Current and Prototype Disclosure Forms* (Federal Trade Commission Bureau of Economics Staff Report, June 2007), *http://www.ftc.gov/os/2007/06/P025505MortgageDisclosureReport.pdf* and Danna Moore, *Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes, and Experiences* (Washington State University, Social

Continued

who wish to obtain a mortgage and believe that they have few options may be more likely to accept loan terms offered to them and, in turn, less likely to consider terms of the mortgage in depth. Similarly, consumers seeking a mortgage to alleviate short-term financial pressures may focus on near-term features of the mortgage, rather than on the risk of, for example, a large payment increase at some later point due to a teaser rate expiring or to fluctuations in interest rates.

Clearer or more readily accessible information about loan terms may also be particularly beneficial for consumers that take out a purchase-money mortgage. A recent survey of mortgage borrowers suggests that purchase-money mortgage consumers are less likely to be familiar with the mortgage process and with mortgage terms such as interest rates and fees, down payments, and money for closing.[200] The final rule would expand HOEPA coverage to purchase-money mortgages so that the potential benefits of improved information may now accrue for the first time to this set of high-cost mortgage consumers.

These benefits to consumers arise from making information less costly, but the potential benefits to consumers may be even greater if at least some consumers make systematic errors in processing information. For example, some studies find that some consumers may not accurately gauge the probability of uncertain events.[201] Thus, it is possible that, in assessing the expected costs of a mortgage offer, some consumers underestimate the likelihood of circumstances that lead, for example, to incurring a late-payment fee or the likelihood of moving or refinancing and thus of incurring a prepayment penalty.

The final rule could increase the cost of credit or curtail access to credit for a small share of HELOC consumers and purchase-money consumers because, as detailed below, creditors may be reluctant to make high-cost mortgages and may no longer offer loans that they currently make but that would meet the new HOEPA thresholds. Studies of State anti-predatory mortgage lending laws, however, indicate these impacts of extending HOEPA coverage may be limited, as the State laws typically have only modest effects on the volume of subprime lending overall and on interest rates for loans that meet the State-law thresholds.[202]

The arguably muted response of origination volume to passage of State anti-predatory lending laws appears to reflect, in part, the fact that the market substituted other products that did not trigger restrictions or requirements of the statute, for example, loans with lower initial promotional interest rates and longer promotional-rate periods.[203] It is possible that some consumers would receive a more-favorable loan if creditors respond to the expansion of the types of loans potentially subject to HOEPA coverage by substituting mortgage terms that would not trigger HOEPA coverage. It is also possible, however, that some consumers would receive a less-favorable loan or no loan at all.[204]

The Bureau is unaware of data that would allow for strong inferences regarding the extent to which such substitution in creditors' mortgage product offerings leads to consumers taking out more favorable loans. Studies of State anti-predatory mortgage lending statutes, however, suggest that stronger State statutes are associated with lower neighborhood-level mortgage default rates.[205] On the one hand, this finding might be seen as consistent with the possibility that at least some consumers receive more beneficial loans. On the other hand, it might reflect the possibility that access to credit is more limited in States with comparatively strong anti-predatory statutes, *i.e.,* that consumers that are more likely to default may be less likely to receive a mortgage in these states. This latter interpretation, however, is arguably more difficult to reconcile with the finding that strong State statutes are estimated to have only a limited effect on the volume of subprime lending.

b. Benefits and Costs to Covered Persons

Expanding the types of loans potentially subject to HOEPA coverage to include purchase-money mortgages and HELOCs would likely require creditors to generate and to provide HOEPA disclosures to a greater number of consumers than today. It is difficult to predict the extent to which creditors may avoid making newly eligible loans under the final rule. The Bureau's estimation methodology in analyzing the paperwork burden associated with the final rule implies that on the order of 25,000–30,000 loans might qualify as high-cost mortgages or high-cost HELOCs. Regardless, the Bureau expects that the share of consumers that receive a high-cost mortgage would remain a small fraction of all mortgage consumers (by the Bureau's estimates, likely about 0.3 percent of all closed-end and open-end originations). Creditors would likely also incur costs (*e.g.,* the costs of time involved in receiving the certification and data retention costs) to comply with the final rule's requirement that a creditor obtain certification that a consumer has received homeownership counseling prior to extending a high-cost mortgage.

A small number of creditors may also lose a small fraction of revenue as a greater number of loans are subject to HOEPA. Based on outreach, the Bureau understands that some creditors believe they will be negatively perceived if they make high-cost mortgages. This belief coupled with the restrictions and liability provisions associated with high-cost mortgages and limited secondary market demand for high-cost mortgages may reduce creditors' ability or willingness to make high-cost purchase-money mortgages and HELOCs. Creditors may also be reluctant to make high-cost purchase-money mortgages that they previously would have extended because of the

and Economic Sciences Research Center, Technical Report 03–39, 2003), *http://www.sesrc.wsu.edu/sesrcsite/Papers/files/dfi-techreport-FINAL2-16-04.pdf.*

[200] Freddie Mac, ''National Mortgage Database, Phase 2 National Survey of Mortgage Borrowers,'' (May 2011).

[201] *See, e.g.,* Colin Camerer, Samuel Issacharoff, George Loewenstein, Ted O'Donoghue, & Matthew Rabin, Regulation for Conservatives: Behavioral Economics and the Case for ''Asymmetric Paternalism,'' 151 U. Pa. L. Rev. 1211 (2003).

[202] These studies have generally found that State laws typically have only small effects on the volume of subprime lending overall. Similarly, more restrictive State laws are associated with higher interest rates, but the evidence suggests this is the case only for fixed-rate loans and that the effect is modest. Nevertheless, the stronger laws were associated with a clearer reduction on the amount of subprime lending, and prohibitions of specific loan features such as prepayment penalties appear to reduce the prevalence of the prohibited feature. *See* Raphael W. Bostic, Souphala Chomsisengphet, Kathleen C. Engel, Patricia A. McCoy, Anthony Pennington-Cross, & Susan M. Wachter, *Mortgage Product Substitution and State Anti-Predatory Lending Laws: Better Loans and Better Borrowers?* (U. Pa. Inst. L. Econ., Research Paper No. 09–27, 2009), *available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1460871;* Lei Ding, Roberto G. Quercia, Carolina K. Reid, and Alan M. White (2011), ''State Anti-Predatory Lending Laws and Neighborhood Foreclosure Rates,'' *Journal of Urban Affairs,* Volume 33, Number 4, pages 451–467.

[203] See Raphael W. Bostic, Souphala Chomsisengphet, Kathleen C. Engel, Patricia A. McCoy, Anthony Pennington-Cross, & Susan M. Wachter, *Mortgage Product Substitution and State Anti-Predatory Lending Laws: Better Loans and Better Borrowers?* (U. Pa. Inst. L. Econ., Research Paper No. 09–27, 2009), *available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1460871.*

[204] It is possible that some borrowers would receive a less favorable mortgage if, for example, lenders avoid making high-cost mortgages and, consequently, competition in lending to some consumers is reduced.

[205] Ding, Roberto G. Quercia, Carolina K. Reid, and Alan M. White (2011), ''State Anti-Predatory Lending Laws and Neighborhood Foreclosure Rates,'' *Journal of Urban Affairs,* Volume 33, Number 4, pages 451–467.

general inability to sell high-cost mortgages in the current market, primarily because of assignee liability.

If creditors were indeed unwilling to make the likely small fraction of loans that newly meet the revised HOEPA thresholds and did not substitute other loan terms, they would lose the full revenue from any loans that they choose not to originate. A second possibility is that creditors restrict high-cost mortgage lending in part by substituting alternative terms that do not meet the HOEPA thresholds. Even if all potential high-cost mortgages were modified in this way so that the number of originations was unaffected, the alternative loans would presumably be less profitable (or at most equally profitable), since a creditor could have offered the same loan contract prior to the expansion of HOEPA. Thus, even when creditors substitute alternative loan products, creditors likely would incur some revenue loss.

c. Scale of Affected Consumers and Covered Persons

Despite expanding the types of loans potentially subject to HOEPA coverage, which likely would result in an increase in the number and share of loans that are classified as high-cost mortgages, high-cost mortgages are expected to continue to account for a small fraction of both closed-end mortgages and HELOCs. Thus, the final rule would be expected to have no direct impact on the vast majority of creditors, because, as noted above, at most about 10 percent of creditors are predicted to make loans that would be classified under the final rule, and few creditors are expected to make significant numbers of high-cost mortgages. Similarly, the final rule would not be expected to affect directly the vast majority of consumers—those who do not apply for or obtain a high-cost mortgage. As noted above, the Bureau estimates that the share of all closed-end mortgages for creditors that report under HMDA might increase from about 0.04 percent under the current thresholds to about 0.1 to 0.3 percent of loans under the revised thresholds. The estimated proportion of purchase-money mortgages that would qualify as high-cost mortgages is slightly greater, 0.5 percent, but is still a small fraction of all such loans.

One trade association argued that the Bureau's analysis of the compliance burden was incomplete because it did not properly consider the costs of determining whether a purchase-money mortgage or a HELOC is a high-cost mortgage. In particular, the trade association asserted that, in general, most creditors as a matter of course seek to avoid high-cost mortgages, due to the reputational stigma and liability risks associated with making these loans. According to this commenter, creditors thus incur costs to identify potential high-cost mortgage s in order to avoid making such loans. But, the commenter asserted, now that HOEPA has been expanded to include both purchase-money transactions and open-end credit transactions, creditors will incur new costs to identify (and avoid making) these types of loans that may potentially fall under the HOEPA thresholds as well. The Bureau believes that these costs include, for example, the costs of changing or upgrading software or computer systems, costs of legal and compliance review of how HOEPA applies to HELOCs, and the costs of training staff that may have previously originated only purchase-money mortgages or HELOCs so that they did not previously need to be familiar with HOEPA. In the trade association's view, the Bureau did not properly account for these new costs in its analysis. However, the Bureau's Section 1022 analysis does not consider the benefits and costs of determining whether purchase-money mortgages and HELOCs exceed the HOEPA thresholds because, as noted in the discussion of the baseline, these benefits and costs arise directly from the statute.

The final rule addresses commenters' concerns, discussed above, that expanding HOEPA coverage to purchase-money mortgages would apply to transactions to finance the initial construction of a dwelling (construction loans)—which typically have higher fees and interest rates than other home-secured loans—and, consequently would unduly reduce access to such credit with little benefit to consumers. One industry commenter estimated that about one-fifth of its construction-only loans originated in recent years would have exceeded the HOEPA thresholds. The benefits to consumers of extending HOEPA coverage to construction loans may be smaller than for other types of loans because many restrictions on high-cost mortgages are generally inapplicable to construction loans including restrictions on acceleration, fees for loan modifications or payoff statements, and negative amortization features.[206] The Bureau is exempting transactions to finance the initial construction of a dwelling from the final rule. Thus, the final rule should have no direct costs or benefits to consumers that seek such financing or to covered persons insofar as they originate these transactions. As compared with the proposed rule, the final rule will result in lower costs for construction loan creditors.

Some commenters argued that the Bureau incorrectly concluded that only a small fraction of manufactured home loans would be covered. However, the Bureau notes that it concluded based on available data that the proposed rule was expected to have little direct impact on the vast majority of consumers and creditors (not manufactured-home borrowers specifically), and that the share of high-cost mortgages would likely be higher for loans secured by manufactured housing than for loans secured by other types of homes. Under the current thresholds, the share of home improvement or refinance loans (those types of loans currently covered by HOEPA) that are identified as high-cost mortgage s in the 2011 HMDA data is about 2 percent for loans secured by a manufactured home compared with about 0.04 percent of loans secured by other types of 1–4 family homes, for example.

The Bureau recognized that HMDA data that form the basis of these estimates likely under-represent mortgages extended in rural areas, where manufactured housing is more common. The Bureau requested additional data on the share of manufactured housing mortgages that would qualify as high-cost mortgages and on the proposed rule's effects on rural areas. By and large, however, the data the Bureau received in response to these requests came from entities that report in HMDA. Thus, although the commenters' analysis and data broadly aligned with the Bureau's analysis of data reported by these creditors under HMDA, the request for data did not yield information on loans extended by creditors that do not report under HMDA.

The benefits and costs to consumers who would potentially seek a mortgage to finance the purchase of a manufactured home and the costs to covered persons of extending HOEPA coverage to purchase-money mortgages depends critically on the source of these differences in the share of loans that qualify as high-cost mortgages. On the one hand, industry commenters argued that the differences reflect manufactured housing creditors' higher cost of funds (due, at least in part, to a lack of secondary market funding for mortgages on manufactured homes) as well as manufactured-home purchasers' typically lower income and credit scores

[206] In addition, the Bureau notes that the Board concluded that, at least historically, there have been fewer concerns regarding potentially abusive lending practices for construction loans compared with other mortgages.

than mortgage consumers as a whole. In addition, mortgages for manufactured housing tend to be for smaller amounts, so these loans may be more likely to exceed the points-and fees thresholds, particularly if origination costs are fixed or do not fall in line with loan size. On the other hand, consumer group commenters raised concerns that higher interest rates and points and fees on manufactured-home purchase-money mortgages may reflect limited competition or harmful lending practices applied to disproportionately to vulnerable consumers.

Available data cannot distinguish the extent to which the factors suggested by commenters underlie the comparatively large fraction of manufactured housing mortgages that meet the existing HOEPA thresholds. Analyzing data for the subset of creditors that report under HMDA, manufactured home loans are more likely than other mortgages to be flagged as high-cost mortgages, and this conclusion still holds after controlling for differences in loan size, consumer income, and other factors reported in HMDA that may differ systematically between owners of manufactured housing and other homeowners. Even so, the remaining gap in the probability that a mortgage has a relatively high interest rate could conceivably reflect differences in consumers' credit scores, collateral value, predicted loan performance, or other factors that are not measured in HMDA.

Without comprehensive data on a range of manufactured housing creditors, including the credit characteristics of their consumers, points and fees, and loan performance, it is difficult to determine the extent to which each of these hypothesized factors contribute to the observed differences in loan terms. Such data, in turn, would allow stronger inferences regarding both the costs and benefits of the final rule to consumers and covered persons alike. If the generally less-favorable terms on manufactured home loans reflected harmful lending practices, then HOEPA's disclosure and counseling requirements and borrower protections may have considerable benefit for consumers. In addition, some creditors that extend credit for the purchase of manufactured homes could gain market share from creditors that engage in harmful lending practices. If the higher interest rates and points and fees (as a percent of loan amount) on mortgages for manufactured homes instead reflect differences in, for example, default rates or creditors' costs, then subjecting a larger share of manufactured-home mortgages to HOEPA restrictions and requirements may reduce access to credit for potential manufactured home buyers and the revenue of creditors that specialize in manufactured home loans. The Bureau notes that, in this scenario, the benefits and costs may vary across consumers and more comprehensive data would be required to gauge the extent of this variation in costs and benefits. Some borrowers that previously could have obtained a manufactured home mortgage would no longer be able to do so and may be worse off. At the same time, other borrowers that cannot finance the purchase of a manufactured home could be better off if the only loan that would have been available to them was a high-cost mortgage. Finally, borrowers who are able to obtain a high-cost loan with substantially similar terms under the existing and final rules may benefit from the additional HOEPA disclosures and protections. If creditors are able to avoid making high-cost mortgages by adjusting loan terms to avoid the thresholds, as may be the case particularly if there is a lack of competition, some borrowers may receive a loan with a lower rate or points and fees than they would have if HOEPA did not apply to purchase-money mortgages.

2. Revised APR and Points-and-Fees Thresholds

The statute, and therefore the final rule, revise the APR and points-and-fees thresholds. These revisions would likely result in an increase in the number of high-cost mortgages. The Bureau estimates, for example, that these changes in the APR thresholds along with the change in the benchmark interest rate from Treasuries to average prime offer rate would increase the fraction of refinance and home improvement loans that are high-cost mortgages made by creditors that reported in the 2011 HMDA data from about 0.06 percent of loans to roughly 0.2 percent of loans. The Dodd-Frank Act also expanded the definition of points and fees to include new charges, including some costs that may be payable after consummation or account opening. The expanded definition of points and fees is expected to reinforce the effect of the revised points-and-fees threshold and to result in a greater number of loans that exceed the new points-and-fees threshold.

One trade association commenter drew on a survey of its members to argue that many mortgages for small dollar amounts would exceed the points-and fees-threshold. According to the trade association, its survey respondents indicated that all mortgages for amounts of $61,500 or less exceeded the points-and-fees threshold and 67 percent of loans for $80,000 or less exceeded the threshold.[207] The Bureau welcomed the additional information provided by this trade association's survey of its membership. Nonetheless, without additional detail about the survey design, for example, the Bureau believes the summary results may be illustrative but cannot be assumed to be representative.

a. Benefits and Costs to Consumers

The Dodd-Frank Act revisions to the thresholds may benefit consumers by increasing the number of credit transactions classified as high-cost mortgages. As a result, the benefits and costs to consumers discussed above in the context of expanding HOEPA coverage are likely similar, at least qualitatively, to the benefits and costs of revising the thresholds to capture a greater share of credit transactions. As a result of the revised thresholds, these benefits and costs would apply to a larger set of transactions, although as noted above, the Bureau believes that high-cost mortgages would likely remain a small fraction of all mortgages. The Bureau believes that, in some cases, these benefits likely include a better understanding of the risks associated with the transaction, which in turn may reduce the likelihood that a consumer takes out a mortgage he or she cannot afford; better loan terms due to increased shopping; and an absence of loan features whose associated risks may be difficult for consumers to understand.

Nonetheless, the final rule could impose costs on a small number of consumers by raising the cost of credit or curtailing access to credit if creditors choose not to make loans that meet the revised thresholds. As discussed above, however, available evidence based on State anti-predatory lending statutes suggests that tighter restrictions and more expansive definitions of high-cost mortgages typically have only a limited impact on the cost of credit and on originations.

For closed-end loans, the definition of points and fees in the final rule is narrower than in the proposal in several respects. First, compared with the proposal, the final rule specifies that charges are included in points and fees only if it is known at or before consummation that the consumer will incur the charges. The final rule also provides that waived third-party charges

[207] Roughly 15 percent of 2011 originations of mortgages secured by single-family, owner-occupied homes reported by lenders under HMDA were for amounts less than $80,000 and about 9 percent were for less than $61,500.

that the creditor may recoup if the consumer prepays the loan in full during the first three years following consummation will not be included in points and fees as prepayment penalties. The Bureau expects that, to the extent these differences result in fewer closed-end credit transactions that meet the points-and-fees thresholds, both the benefits and costs to consumers would be reduced relative to the proposal.

The definition of points and fees for open-end credit plans in the final rule also differs from that in the proposal along two dimensions. First, loan originator compensation (defined identically to compensation for closed-end loans) will be included in points and fees under the final rule, whereas the proposal would have excluded these payments. This change is expected to increase the number of HELOCs that qualify as high-cost mortgages and, accordingly, the costs and benefits to consumers and to covered persons. By contrast, the final rule's inclusion of participation fees payable at or before account opening—rather than for the life of the loan, as proposed—is expected to decrease the number of HELOCs that qualify as high-cost mortgages.

In calculating the APR for variable-rate transactions, the final rule specifies that this rate is based on the fully-indexed rate and relevant margin if the rate can vary based only on an index, even if that index is the creditor's own index. The proposal would have required that the APR be calculated based on the maximum rate that could be charged over the life of the loan if the relevant index was under the creditors' control. Thus, the proposal would potentially have led to a greater number of loans that exceed the APR threshold. For this reason as well, the Bureau expects that the benefits and costs to consumers would be reduced relative to the proposal. As discussed above, however, the Bureau expects that only a small number of variable-rate, closed-end credit transactions would employ an index in the creditor's control, so this revision to the proposal should not result in a significant change to the benefits and costs to consumers.

The final rule does not implement the measures contained in the proposed rule that were intended approximately to offset an increase in HOEPA coverage as a result of the more expansive finance charge definition contained in the Bureau's 2012 TILA–RESPA Proposal. Since the alternative measures would have been crafted so that the number of high-cost mortgages would have been approximately unchanged, the Bureau expects that this difference between the proposed and final rules would not appreciably alter the potential costs and benefits to consumers.

b. Benefits and Costs to Covered Persons

The benefits and costs to covered persons of revising the statutory HOEPA thresholds would likely be expected to be similar, at least qualitatively, to those that would result from expanding the types of credit transactions potentially subject to HOEPA coverage to purchase-money mortgages and HELOCs. For example, creditors would likely incur costs associated with generating and providing HOEPA disclosures for additional transactions that would be covered by the revised HOEPA thresholds, as well as costs associated with obtaining certification that a consumer has received homeownership counseling prior to taking out a high-cost mortgage. As discussed above, the Bureau estimates that a small number of creditors may also lose a modest fraction of revenue if they are reluctant to make high-cost mortgages and cannot offer alternatives that are as profitable as a high-cost mortgage.[208]

Again, the final rule differs from the proposal in its more limited definitions of points and fees for closed- and open-end credit transactions and its use of the fully indexed rate (rather than maximum allowable rate) in calculating the APR for certain variable-rate transactions. The Bureau expects that, to the extent these differences result in fewer loans that meet the points-and-fees or APR thresholds, benefits and costs to covered persons would be reduced relative to the proposal, just as for consumers. At the same time, the clarifying changes made to points and fees (*e.g.,* changes noting when loan originator compensation must be included) will reduce covered persons' compliance burden; the definition of loan originator compensation is identical to the definition adopted in the Bureau's qualified-mortgage rulemaking.

The final rule does not implement the alternative proposal to adopt a Transaction Coverage Rate (TCR) in the event that a more expansive definition of finance charge were finalized in connection with the Bureau's 2012 TILA–RESPA Proposal. The Bureau is therefore not addressing at this time commenters' concerns with respect to the costs that may be associated with calculating a TCR.

3. New Prepayment-Penalty Test

The Dodd-Frank Act added a new HOEPA coverage test for loans with a prepayment penalty. Under the Dodd-Frank Act, HOEPA protections would be triggered where the creditor may charge a prepayment penalty more than 36 months after consummation, or if the penalty is greater than 2 percent of the amount prepaid. High-cost mortgages, in turn, are prohibited from having prepayment penalties, so the prepayment penalty test effectively caps both the time period after consummation during which such a penalty may be charged and the amount of any such penalty.

As discussed below, due to data limitations, the Bureau cannot fully quantify the benefits and costs to consumers and the costs to covered persons. Nevertheless, the Bureau believes that the number of credit transactions that might qualify as high-cost mortgages because of the prepayment penalty test is likely small.

Trends and aggregate statistics suggest that mortgages originated in recent years are very unlikely to have prepayment penalties for two reasons. First, prepayment penalties were most common on subprime and near-prime mortgages, a market that has disappeared. Second, a roughly 90 percent of dollar-weighted mortgage originations in recent years were purchased by Fannie Mae or Freddie Mac or were FHA or VA loans.[209] Fannie Mae and Freddie Mac purchase very few loans with prepayment penalties—in a random sample of mortgages from the FHFA's Historical Loan Performance data, a very small percentage of mortgages originated between 1997 and 2011 had a prepayment penalty.[210]

[208] As noted above, a trade association commenter stated, based on a survey of its members, that many mortgages for comparatively small dollar amounts would exceeded the points-and-fees threshold. For example, the survey respondents indicated that about two-thirds of loans for $80,000 or less would exceed the threshold. The Bureau notes that loans of this size comprise about 15 percent of home-secured, single-family, owner-occupied loans reported the 2011 HMDA data and, presumably, a similar small fraction of revenue. Further, the Bureau believes that without additional detail regarding, for example, the survey design and question wording, the summary results from the survey may be illustrative, but cannot be assumed to be representative.

[209] In dollar-weighted terms, loans purchased by Fannie Mae or Freddie Mac accounted for about two-thirds of 2011 mortgage originations, and FHA/VA loans comprised roughly 22 percent of originations. Figures for 2010 are similar. Inside Mortgage Finance ''The 2012 Mortgage Market Statistical Annual, Volume 1: The Primary Market,'' (2012) at 17. *See also* Tamara Keith, ''What's Next for Fannie, Freddie? Hard To Say,'' February 10, 2011, available at *http://www.npr.org/2011/02/10/133636987/whats-next-for-fannie-freddie-hard-to-say*.

[210] The Bureau notes that a trade association noted in its comments that all but one of its members that it surveyed regarding the effects of

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Further, the Bureau observes that the prevalence of prepayment penalties, in general, could be reduced over time by other Dodd-Frank Act provisions related to ability-to-repay requirements that separately restrict such penalties for closed-end credit transactions that are not qualified mortgages.[211] For example, under the Dodd-Frank Act, most closed-end, dwelling-secured mortgages will generally be prohibited from having a prepayment penalty unless they are fixed-rate, non-higher-priced, qualified mortgages. Moreover, under the Dodd-Frank Act, even such qualifying closed-end mortgages may not have a prepayment penalty that exceeds 3 percent, 2 percent, or 1 percent of the amount prepaid during the first, second, and third years following consummation, respectively (and no prepayment penalty thereafter). Finally, under the Dodd-Frank Act, prepayment penalties are included in the points and fees calculation for qualified mortgages. For qualified mortgages, points and fees are capped at 3 percent of the total loan amount, so unless a creditor originating a qualified mortgage can forgo some or all of the other charges that are included in the definition of points and fees, it necessarily will need to limit the amount of prepayment penalties that may be charged in connection with the transaction.[212]

a. Benefits and Costs to Consumers

The final rule would potentially benefit a small number of consumers by potentially making it easier to refinance a high-cost mortgage. Prepayment penalties can prevent a consumer from refinancing in circumstances where it would be advantageous for the consumer to do so as would be true if, for example, interest rates fall or if the consumer's credit score improves. The prepayment penalty test coupled with the prohibition on prepayment penalties would remove this barrier to obtaining a more favorable loan.

The final rule may be particularly beneficial to consumers who, in taking out a mortgage, underestimate the likelihood that they will move or that more favorable terms might be available in the future so that refinancing would be advantageous. Likewise, eliminating prepayment penalties could benefit consumers that select a loan based on terms that are immediately relevant or certain rather than costs and benefits of the loan terms that are uncertain or in the future.

Nevertheless, the final rules regarding prepayment penalties would potentially result in some consumers taking out a mortgage that is less favorable than they would if the rule were not implemented. For example, this would be true for a consumer who is unlikely to move or refinance and may be willing to accept a prepayment penalty in exchange for a lower interest rate if a creditor offered mortgage products with such a trade-off.[213] The final rules regarding prepayment penalties could, more generally, reduce access to credit for some potential applicants if creditors that previously used such penalties to manage prepayment and interest-rate risk reduce lending or increase interest rates or fees as a result of the final rule.

At this time, the Bureau cannot quantify the extent to which creditors may restrict lending or increase fees or interest rates as a result of the final rule. To do so would require, among other information, comprehensive data on the terms and features—including details of any prepayment penalties—of mortgage contracts that creditors offer. Similarly, the Bureau cannot quantify the share of consumers or the costs to consumers who may receive a less-favorable mortgage than if the final rule did not restrict prepayment penalties. Estimating these quantities would require not only data on the alternative mortgage contracts that consumers might be offered but also information on how consumers value each of the alternative contracts.

b. Costs to Covered Persons

The final rule could increase the risk and, in turn, the costs that the likely small number of creditors that would make high-cost mortgages would assume in making such a loan. Prepayment penalties are one tool that creditors can use to manage prepayment and interest rate risk and to increase the likelihood that creditors recoup the costs of making the loan. The final rule would limit creditors' ability to manage prepayment and interest rate risk in this way, although creditors might be expected to adjust the contracts that they offer to at least partially offset any associated revenue loss. The Bureau notes that the costs to creditors associated with this component of the final rule could be muted by the effect of the other provisions of the Dodd-Frank Act that limit prepayment penalties, as discussed above.

4. New and Revised Restrictions and Requirements for High-Cost Mortgages

The final rule also tightens existing restrictions for high-cost mortgages, including on balloon payments, acceleration clauses, and loan structuring to evade HOEPA and, as discussed above, bans prepayment penalties for high-cost mortgages. Further, the final rule adds new restrictions including limiting fees for late payments and fees for transmission of payoff statements; prohibiting fees for loan modification, payment deferral, renewal or extension; prohibiting financing of points and fees; and prohibiting recommended default. Finally, the rule provides for an expansion of the existing ability-to-repay requirement to open-end credit plans and adds a requirement that a creditor receive certification that a consumer has received pre-loan homeownership counseling prior to extending a high-cost mortgage.

a. Benefits and Costs to Consumers

Taken together, the final rule's requirements and restrictions provide a variety of potential benefits to the likely small number of consumers with a high-cost mortgage. These potential benefits include reducing the likelihood that a consumer would face unexpected payment increases, increasing the likelihood a consumer can refinance, and improving a consumer's ability to obtain a mortgage that is affordable and otherwise meets their needs.

The restrictions on acceleration clauses, late fees, and fees for loan modification, payment deferral, renewal or similar actions each reduce the likelihood of unanticipated payment increases. Steady, predictable payments may simplify consumers' budgeting and may particularly benefit consumers with high-cost mortgages if, as might be expected, these consumers tend to have fewer resources to draw upon to meet unanticipated payment increases.

Similarly, the final rule generally prohibits balloon payments for high-cost

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the proposed rule would be unaffected by the new prepayment penalty test. The Bureau observes, however, that the representativeness and weight of this finding from the survey cannot be assessed without additional detail such as the context and wording of the questionnaire, the number and characteristics of the creditors that responded to the survey, and information on how these respondents differ from the population of creditors that extend mortgages as a whole.

[211] *See* 15 U.S.C. 1639c.

[212] Further, the Bureau notes that a trade association noted in its comments that all but one of its members that it surveyed regarding the effects of the proposed rule would be unaffected by the new prepayment penalty test. The Bureau further notes, nonetheless, that the representativeness and weight of this finding from the survey cannot be assessed without additional detail such as the context and wording of the questionnaire, the number and characteristics of the creditors that responded to the survey, and information on how these respondents differ from the population of creditors that extend mortgages as a whole.

[213] At least for subprime loans, loans with a prepayment penalty tend to have lower interest rates. *See, e.g.,* Oren Bar-Gill, *The Law, Economics and Psychology of Subprime Mortgage Contracts,* 94 Cornell L. Rev. 1073–1152 (2009).

mortgages except in certain limited circumstances. Although scheduled balloon payments may be more predictable than, for example, a late fee, balloon payments may typically be much larger. The final rule's limits on balloon payments may reduce the likelihood that a consumer with insufficient financial assets to make the balloon payment feels pressure to refinance the loan, potentially at a higher interest rate or with new fees. In contrast to the proposal, which would have exempted from the balloon restriction only mortgage transactions with payment schedules adjusted to the seasonal income of the consumer, the final rule also exempts certain short-term bridge loans (which generally are structured with balloon payments) and high-cost mortgages originated by specific categories of creditors serving rural or underserved areas that also meet other prescribed conditions set forth in the 2013 ATR Final Rule. Consumers with a high-cost short-term bridge loan or with a mortgage that meets these specific criteria would not benefit from avoiding the potential contingency of facing pressure to refinance a high-cost mortgage in order to avoid a scheduled balloon payment.

Several of the requirements and restrictions may help consumers to select the mortgage that best suits their needs. First, the requirement that the creditor assess the repayment ability of an applicant for a high-cost HELOC may help to ensure that the HELOC is affordable for the consumer. Second, the provision that prohibits a creditor from recommending that a consumer default on an existing loan in connection with closing a high-cost mortgage that refinances the existing loan would make it less likely that, because of a pending default, a consumer is pressured or constrained to consummate a mortgage, particularly one whose terms had changed unfavorably after the initial application. Third, prohibiting loan modification fees and restricting fees for payoff statements would reduce the costs to borrowers of obtaining a more favorable loan through modification or refinancing. Fourth, by prohibiting financing of points and fees (including a prepayment penalty as part of a refinance), the final rule could improve consumers' ability to assess the costs of a given mortgage. In particular, the costs of points and fees or of a prepayment penalty may be less salient to consumers if they are financed, because the cost is spread out over many years. When points and fees are instead paid up front, the costs may be more transparent for some consumers, and consequently the consumer may more readily recognize a relatively high fee. Fifth, pre-loan counseling would potentially improve applicants' mortgage decision-making by improving applicants' understanding of loan terms. This benefit is qualitatively similar to the benefits of the HOEPA disclosure. Moreover, counseling may benefit a consumer by, for example, improving the consumer's assessment of his or her ability to meet the scheduled loan payments and by making the consumer aware of other alternatives (such as purchasing a different home or a different mortgage product). Finally, some applicants may find information on loan terms and features to be more useful or effective when delivered in a counseling setting rather than in paper form. Counseling could also complement the HOEPA disclosure by providing applicants an opportunity to resolve questions regarding information on the disclosure itself. In addition, in weighing the feasibility or merits of a loan, applicants may focus on the loan features that are most easily understood, most immediately relevant, or most certain; homeownership counseling could mitigate any bias in an applicant's decision-making by focusing either on less understood or less immediate, but still important, provisions.

It is possible, however, that creditors would respond to the tighter restrictions on high-cost mortgages by increasing the cost of credit or even no longer extending loans to these consumers. As noted above, however, to date the evidence suggests that, in general, restrictions on high-cost lending may have only modest effects on the cost of credit and on the supply of credit, at least as measured by mortgage originations.

As discussed above, however, the Bureau agreed with commenters that prohibiting balloon payments on a high-cost mortgage could reduce consumers' access to credit more substantially in some specific instances and therefore impose greater costs on some consumers with a high-cost mortgage. In light of this, the final rule exempts certain short-term bridge loans and mortgages extended by creditors serving rural or underserved communities from the general prohibition of balloon payments for high-cost mortgages.

Finally, the pre-loan counseling requirement could impose costs on consumers. Not only might the consumer have to pay for counseling, but the need to obtain counseling could conceivably delay the closing process, and such delay may be costly for some consumers.

b. Benefits and Costs to Covered Persons

Creditors that already assess a HELOC-consumer's ability to repay may benefit from the final rule's requirement by gaining market share as their competitors incur costs to meet this requirement. The requirement that a creditor receive certification that a consumer obtaining a high-cost mortgage has received pre-loan homeownership counseling may benefit creditors by reducing the time that a creditor would need to spend to help a consumer select a mortgage or to answer a consumer's questions.

In light of the tighter restrictions and requirements on high-cost mortgages, creditors may be less willing to make high-cost mortgages. If so, then some creditors' revenues may decline by a likely small proportion either because they do not extend any credit to a consumer to whom they would have previously made a high-cost mortgage, or because they extend an alternative loan that does not qualify as a high-cost mortgage but that results in lower revenue. In addition, as commenters stated, restrictions such as limiting fees for payoff statements and prohibiting loan modification fees would result in higher costs to all mortgage borrowers. One community bank commented that current restrictions on high-cost mortgages had already driven creditworthy customers to seek credit from less-regulated creditors.

In some instances the potential impacts of these restrictions may extend beyond creditors. The rule would extend the prohibition on recommended default to brokers as well as creditors, for example. This prohibition is expected to have little impact on covered persons because the Bureau believes that few, if any, creditors or brokers have a business model premised on recommending default on a loan to be refinanced as a high-cost mortgage. The limits on various fees, detailed above, apply to servicers as well as creditors. Both of these sets of covered persons could incur revenue losses or greater costs if such fees are important risk management tools.

The Bureau believes creditors would incur recordkeeping and data retention costs due to the final requirement that a creditor receive certification that a consumer received pre-loan counseling. Based on the estimation methodology for analyzing the paperwork burden associated with the final rule, the Bureau estimates that the total ongoing costs for all creditors that make any high-cost mortgages to be about $43,000 annually. These costs may be small relative to the quantity of other

information that must be retained and that, under the proposed 2012 TILA–RESPA rule, would generally be required to be retained in machine-readable format.

5. Counseling-Related Provisions for RESPA-Covered Loans and Negative-Amortization Loans

The final rule, like the proposal, would include two additional provisions required by the Dodd-Frank Act related to homeownership counseling that apply to loans with negative amortization and loans covered by RESPA. First, the final rule would require lenders to provide a list of homeownership counseling organizations to applicants for all mortgages covered by RESPA except for reverse mortgages and transactions secured by a consumer's interest in a timeshare plan.

Several industry commenters, including community banks, objected to the requirement that the RESPA homeownership counseling list be provided to refinance or HELOC applicants. Consumer groups commented that the counseling list requirement should apply to all federally related mortgages because concerns regarding potentially abusive lending practices and borrower confusion also exist for refinancings and HELOCs, not just for purchase-money mortgages. The Bureau agrees that the potential benefits of homeownership counseling are not limited to purchase-money mortgage consumers.

Commenters suggested that compliance burden would be lower if creditors were not required to provide an applicant-specific counseling list. Alternatives that commenters suggested include State-specific lists and a uniform document with general information regarding homeownership counseling along with information on internet or telephone resources to identify homeownership counseling resources. The Bureau agrees that requiring creditors to provide a list of homeownership counseling resources that is not tailored to each applicant's location would reduce lenders' compliance burden. However, the Bureau also believes that a more-generic list would reduce the likelihood that at least some mortgage applicants obtain and potentially benefit from homeownership counseling. Moreover, the Bureau notes that the Dodd-Frank Act specifies that applicants receive a list of counseling resources organized by location, and the Bureau notes that it interprets this statutory prescription to mean the location of the applicant who is being served by the lender.

The proposal would also have required that both consumers with a high-cost mortgage and first-time borrowers with a loan that may result in negative amortization receive a list of homeownership counselors or counseling organizations, but the final rule does not include this requirement. These proposed requirements that consumers with a HOEPA or negative-amortization mortgage receive a list of homeownership counseling resources would have been satisfied by complying with the RESPA counseling list requirement since RESPA covers both sets of loans. Therefore, there would have been no additional costs and benefits from the proposed requirements for HOEPA and negative-amortization mortgages. Similarly, removing the requirements for these sets of loans in the final rule does not alter the regulation's costs and benefits.

With respect to first-time borrowers with a loan that could have negative amortization, the final rule would require that a creditor receive documentation that the consumer received homeownership counseling. The final rule would not specify any particular elements that must be included in the documentation.

a. Benefits and Costs to Consumers

The two non-HOEPA homeownership counseling provisions included in the final rule would generally have benefits to consumers that are similar in nature to those of requiring that creditors to receive certification that a consumer with a high-cost mortgage has received homeownership counseling. In particular, as discussed above, homeownership counseling may improve consumers' understanding of their mortgages, it may complement the information provided in disclosures, and it could counteract any tendency among consumers to consider only loan features that are most certain, most easily understood, most immediately relevant, or most clearly highlighted by creditors.

The final rule would not mandate counseling for potential consumers of mortgages covered by RESPA, but requiring creditors to provide the list of homeownership counseling organizations may prompt some consumers who were unaware of these resources (or of their geographic proximity) to seek homeownership counseling. This may especially be the case for consumers who feel confused or overwhelmed by the information and disclosures provided by the creditor.

In contrast, the final rule would require that a creditor receive documentation that a first-time borrower that has applied for a loan that could have negative amortization has received homeownership counseling. First-time borrowers may particularly benefit from homeownership counseling if they have greater difficulty, relative to other consumers, in understanding or assessing loan terms and features because they do not have experience with obtaining or paying on a mortgage.

The Bureau believes that requiring applicants of loans covered by RESPA to receive a list of homeownership counseling organizations should not result in costs to consumers beyond those passed on by creditors. More specifically, the information contained on the list should be readily understandable, the time required of the consumer to receive the disclosure should be minimal, and consumers may choose not to follow up on this information.

First-time borrowers with a loan that may have negative amortization may have to pay for the counseling, either upfront or by financing the fee. In addition, counseling may be costly, at least in terms of time, for consumers who do not find it helpful. In addition, the counseling requirement may impose delays on loan closing, which could be costly, for example, for a consumer who is contractually obligated to close on a home by a certain date.

b. Benefits and Costs to Covered Persons

The Bureau believes that covered persons would incur costs from providing potential consumers of loans covered by RESPA with a list of homeownership counseling organizations. The Bureau estimates that these costs are likely less than one dollar per application but recognizes that creditors would have to provide the list with each of well over 10 million applications each year. The Bureau expects that the list would be a single page and that it would be provided with other materials that the creditor is required to provide. In addition, the Bureau will create a Web site portal for lenders to use in generating the required lists of homeownership counseling organizations.

The Bureau also believes that the costs of obtaining documentation that a first-time borrower with a negative-amortization loan has obtained counseling are likely small because such loans will most likely be very rare. Not only are loans with negative-amortization features uncommon, but also the provision would apply only to first-time borrowers for such loans.[214]

[214] Data from the 2010 Survey of Consumer Finances (SCF), the most recent survey year

Further, the creditor would only be required to receive the documentation of counseling. For these reasons, the Bureau believes that the burden to creditors would be minimal.

In the preamble of the proposal, the Bureau noted that the proposed counseling requirements for high-cost mortgages differed from those for mortgages that may result in negative amortization. The Bureau solicited comment on whether conforming these requirements to one another would reduce compliance burdens. The Bureau notes that it received no data from commenters on this point.

Creditors may benefit from these two counseling-related provisions by gaining market share relative to creditors that currently do not provide clear and complete information to consumers regarding loan terms. This could occur if, as a result of counseling, applicants to such a creditor obtained a better understanding of the loan offer and were less likely to accept it.

E. Potential Specific Impacts of the Final Rule

1. Depository Institutions and Credit Unions with $10 Billion or Less in Total Assets, As Described in Section 1026

The Bureau does not expect the final rule to have a unique impact on depository institutions and credit unions with $10 billion or less in total assets as described in section 1026. As noted above, although not all creditors report under HMDA, those data suggest that the vast majority of creditors do not make any high-cost mortgages. The Bureau expects this would be the case under the final rule as well, so few institutions would likely be directly impacted by the final rule. As might be expected given the fact that the vast majority of depository institutions that make mortgages are estimated to have less than $10 billion in total assets, the estimated share of these creditors in HMDA that currently make any closed-end high-cost mortgages, 8 percent, is essentially identical to the estimate for all depository institutions. Likewise, nearly 16 percent of all depository institutions and credit unions that report under HMDA and of those with $10 billion or less in total assets that report in HMDA are predicted to make any high-cost mortgages under the final rule. The impact of the final rule on depository institutions and credit unions may vary based on the types of loans that an institution makes currently including, for example, the share of mortgage lending comprised of purchase-money mortgages and HELOCs relative to closed-end refinance and home-improvement loans.

2. Impact of the Provisions on Consumers in Rural Areas

Data on mortgage lending in rural areas are comparatively sparse. In particular, the HMDA data, which inform the analysis of the final rule, only include creditors that have a branch in a metropolitan statistical area, so these data are unlikely to be representative of rural mortgage transactions. Thus, it is difficult to quantify how the final rule may affect rural consumers differently from consumers and applicants in urban areas. Nonetheless, in qualitative terms, one might expect that the impact of the final rule on consumers in rural areas could differ from those for consumers located in urban areas for several reasons. First, rural consumers may have fewer creditors that they readily comparison shop among and fewer nearby counseling resources. A potential reduction in lending for newly classified high-cost mortgages may therefore have a greater impact in rural areas, and a rural consumer that is offered a high-cost mortgage may be less able to obtain a mortgage from a different creditor that is not a high-cost mortgage. Similarly, consumers in rural areas may have fewer in-person counseling resources available in their immediate vicinity.

Second, the Bureau understands that creditors in rural areas are more likely to extend balloon loans. One reason for this is that smaller creditors in these areas may be less likely to be able to securitize their mortgages, at least in the current market environment. These smaller creditors therefore bear the interest rate risk for these loans, and they may rely on balloon-payment mortgages to manage this risk. To mitigate potential reductions in access to credit, the final rule allows an exemption from the balloon payment prohibition for creditors that make high-cost mortgages with balloon payments, but that also meet the conditions set forth in §§ 1026.43(f)(1)(i) through (vi) and 1026.43(f)(2), as adopted by the 2013 ATR Final Rule. This provision would reduce the burden of the final rule for rural creditors that offer high-cost loans with balloon payments.

Third, the share of loans that qualify as high-cost mortgages may differ in rural areas relative to urban areas due to geographic differences in the housing stock and home values. The Bureau believes that mortgages in rural areas are more likely to be non-conforming because of, for example, seasonal or irregular income.[215] In addition, home values tend to be lower in rural areas, a pattern that has potentially ambiguous implications for the likelihood that a rural loan would qualify as a high-cost mortgage. Specifically, some mortgages in these areas may be more likely to qualify as high-cost mortgages because they have comparatively high points and fees as a percentage of the loan amount. At the same time, rural mortgages are also more likely to be for less than $20,000 and thus subject to the higher points-and-fees threshold.

Finally, manufactured homes are more common in rural areas; about 15 percent of housing units in rural areas are manufactured homes compared to less than four percent of housing units in urban areas.[216] As noted above, mortgages secured by manufactured housing typically have higher interest rates and smaller loan amounts so they are more likely to meet the APR and points-and-fees thresholds. Since manufactured-home residents disproportionately reside in rural areas and loans secured by manufactured homes are more likely to exceed the HOEPA thresholds, the benefits of HOEPA protections and disclosures may be more likely to accrue to mortgage borrowers and applicants in rural areas as would the potential costs to consumers such as potentially higher cost of credit or more limited access to credit.

VIII. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct an initial regulatory flexibility analysis (IRFA) and a final regulatory flexibility analysis (FRFA) of any rule subject to notice-and-comment rulemaking requirements, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.[217] The Bureau

available at the time this analysis was conducted, indicate that only 0.8 percent of first-lien mortgages in 2010 reportedly had negative-amortization features. This estimate is only suggestive because it is only for first-lien mortgages and it is an estimate of the stock, rather than the flow, of mortgages with such features. The 2010 estimate is higher than the corresponding estimate in the 2007 SCF, but it is lower than estimates from the six waves of the SCF between 1989 and 2004, for which the estimate fraction of first-lien mortgages with negative-amortization features ranged from 1.3 percent to 2.3 percent.

[215] The Bureau notes that the balloon payment restrictions included an exemption for seasonal or irregular income.

[216] Estimates are three-year estimates from the 2009–2011 American Community Surveys (*http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_3YR_GCT2501.US26&prodType=table*).

[217] For purposes of assessing the impacts of the final rule on small entities, ''small entities'' is

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also is subject to certain additional procedures under the RFA involving the convening of a panel to consult with small business representatives prior to proposing a rule for which an IRFA is required.[218]

The Bureau is certifying the final rule. Therefore, a FRFA is not required for this rule because it will not have a significant economic impact on a substantial number of small entities.

A. Overview of Analysis and Data

The analysis below evaluates the potential economic impact of the final rule on small entities as defined by the RFA.[219] It considers effects of the revised APR and points-and-fees coverage thresholds and of the extension of HOEPA coverage to purchase money mortgages and HELOCs. In addition, the analysis considers the impact of the two non-HOEPA counseling-related provisions which are being implemented as part of the final rule. The analysis does not consider the interaction between State anti-predatory lending laws and HOEPA. The Bureau notes that State statutes that place tighter restrictions on high-cost mortgages than either current or amended HOEPA may reduce the economic impact of the final rule.[220]

The analysis below uses a pre-statute baseline, except for the extension of HOEPA coverage to purchase-money mortgages and HELOCs. As noted in its section 1022 analysis, the Bureau does not consider these benefits and costs because these changes are required by the Dodd-Frank Act's amendments to HOEPA.[221] The Bureau's discretion to exempt broad categories of loans from HOEPA coverage is limited, and the Bureau does not believe such exemptions are consistent with the mandate of the statute. Creditors today generally have processes and often software systems to determine whether a transaction is a high-cost mortgage. Creditors will have to update these processes and systems to determine whether a purchase money mortgage or HELOC is a high-cost mortgage. The cost of determining whether a transaction is a high-cost mortgage is therefore unavoidable under the statute.

The analysis considers the impact of the final rule's revisions to HOEPA on closed-end lending by depository institutions (DIs), closed-end lending by non-depositories (non-DIs), and HELOCs separately because these components of the analysis necessarily rely on different data sources. The starting point for much of the analysis of closed-end lending is loan-level data reported under the Home Mortgage Disclosure Act (HMDA).[222] The HMDA data include information on high-cost mortgage lending under the current HOEPA thresholds, but some creditors are exempt from reporting to HMDA.[223] For exempt DIs, the Bureau estimates the extent of creditors' high-cost, closed-end lending under the current and post-Dodd Frank Act thresholds based on Call Report data (which are available for all DIs). For exempt non-DIs, the Bureau supplements data on non-depositories that report in HMDA with data from the Nationwide Mortgage Licensing System and Registry Mortgage Call Report (''MCR'').[224] The Bureau does not have comprehensive loan-level data for HELOCs comparable to the HMDA data for closed-end mortgages, and this portion of the analysis draws on Call Report data as well as data from the 2010 Survey of Consumer Finances (SCF).[225] Finally, in all cases the Bureau notes that it is not aware of representative quantitative data on prepayment penalties, but available evidence suggests that this new threshold would have little impact on HOEPA coverage.[226]

As a measure of the potential impact of the final rule, the analysis considers the potential share of revenue a creditor may forgo if it were to make no high-cost mortgages.[227] The Bureau believes that this approach very likely provides a conservative upper bound on the effects on creditors' revenues, since some of the new loans potentially subject to HOEPA coverage might still be made (either as high-cost mortgages or with alternative terms to avoid the HOEPA thresholds). The Bureau notes that at least some creditors currently extend high-cost mortgages. Further, creditors may still make some loans that might otherwise meet the new HOEPA thresholds by changing the loan terms to avoid being a high-cost mortgage (though perhaps with a partial revenue loss).[228] Moreover, this approach is consistent with the possibility that some

defined in the RFA to include small businesses, small not-for-profit organizations, and small government jurisdictions. 5 U.S.C. 601(6). A ''small business'' is determined by application of Small Business Administration regulations and reference to the North American Industry Classification System (NAICS) classifications and size standards. 5 U.S.C. 601(3). A ''small organization'' is any ''not-for-profit enterprise which is independently owned and operated and is not dominant in its field.'' 5 U.S.C. 601(4). A ''small governmental jurisdiction'' is the government of a city, county, town, township, village, school district, or special district with a population of less than 50,000. 5 U.S.C. 601(5).

[218] 5 U.S.C. 609.

[219] The Bureau received comments addressing the impact of the final rule generally. These comments are addressed throughout this preamble, and in the context of its final section 1022 analysis.

[220] In its analysis of a proposed change to the definition of finance charge, the Board noted that, at least as of 2009, only Illinois, Maryland, and Washington, DC had APR thresholds below the then-existing HOEPA APR threshold for first-lien mortgage loans. 74 FR 43232, 43244 (Aug. 26, 2009).

[221] The Bureau notes that the HOEPA amendments of the Dodd-Frank Act are self-effectuating and that the Dodd-Frank Act does not require the Bureau to promulgate a regulation. Viewed from this perspective, the final rule reduces burdens by clarifying statutory ambiguities that may impose costs such as increased costs for attorneys and compliance officers, over-compliance, and unnecessary litigation.

[222] The Home Mortgage Disclosure Act (HMDA), enacted by Congress in 1975, as implemented by the Bureau's Regulation C requires lending institutions annually to report public loan-level data regarding mortgage originations. For more information, see *http://www.ffiec.gov/hmda.*

[223] Depository institutions with assets less than $40 million (in 2011), for example, and those with branches exclusively in non-metropolitan areas and those that make no purchase money mortgage loans are not required to report to HMDA. Reporting requirements for non-depository institutions depend on several factors, including whether the company made fewer than 100 purchase-money or refinance loans, the dollar volume of mortgage lending as share of total lending, and whether the institution had at least five applications, originations, or purchased loans from metropolitan areas.

[224] The Nationwide Mortgage Licensing System is a national registry of non-depository financial institutions including mortgage loan originators. Portions of the registration information are public. The Mortgage Call Report data are reported at the institution level and include information on the number and dollar amount of loans originated, the number and dollar amount of loans brokered, and on HOEPA originations. The analysis in this part draws on HMDA and MCR data by classifying non-depository institutions with similar reported amounts of originations and of HOEPA lending in the two data sets.

[225] The Bureau assumes that few if any non-DIs originate HELOCs due to lack of funding for lines of credit and lack of access to the payment system.

[226] Trends and aggregate statistics suggest that loans originated in recent years are very unlikely to have prepayment penalties for two reasons. First, prepayment penalties were most common on subprime and near-prime loans, a market that has disappeared. Second, by one estimate, nearly 90 percent of 2010 originations were purchased by Fannie Mae or Freddie Mac or were FHA or VA loans (Tamara Keith, ''What's Next for Fannie, Freddie? Hard to Say,'' February 10, 2011, available at *http://www.npr.org/2011/02/10/133636987/whats-next-for-fannie-freddie-hard-to-say*). Fannie Mae and Freddie Mac purchase very few loans with prepayment penalties—in a random sample of loans from the FHFA's Historical Loan Performance data, a very small percentage of loans originated between 1997 and 2011 had a prepayment penalty.

[227] Revenue has been used in other analyses of economic impacts under the RFA. For purposes of this analysis, the Bureau uses revenue as a measure of economic impact. In the future, the Bureau will consider whether a feasible alternative numerical measure would be more appropriate for financial firms.

[228] By the same token, the analysis also implicitly assumes that creditors that do not currently make high-cost mortgages will not rethink their policies and make high-cost mortgages in the future. Although it seems the less likely concern, the Bureau notes that creditors could change their policies if a large share of creditors' originations would now meet the HOEPA thresholds.

creditors may be less willing to make high-cost mortgages in the future due to new and revised restrictions on high-cost mortgages, but the Bureau believes that any such effect on creditors' willingness to extend high-cost mortgages likely is small.

B. Overview of Market for High-Cost Mortgages

High-cost mortgages comprise a small share of total mortgages. HMDA data indicate that less than one percent of loans meet the current HOEPA thresholds and that this share has generally declined over time.[229] Between 2004 and 2011, high-cost mortgages typically comprised about 0.2 percent of originations of home-secured refinance or home-improvement loans made by creditors that report in HMDA. This fraction peaked at 0.44 percent in 2005 and fell to 0.05 percent by 2011.[230] Similarly, few creditors originate high-cost mortgages. The number of creditors extending high-cost mortgages ranged between about 1,000 and 2,300 over the 2004 and 2009 period, or between 12 and 27 percent of creditors. The number of creditors extending high-cost mortgages fell in 2010 and 2011, and only about 570 creditors (roughly 8 percent) filing HMDA data reported any high-cost mortgages in 2011.[231]

C. Number and Classes of Affected Entities

Greater than half of commercial banks and about 40 percent of thrifts meet the Small Business Administration's definition of small entities, and the large majority of these institutions originate mortgages (Table 1). By comparison, not quite 80 percent of credit unions are small entities, but about 40 percent of credit unions and nearly half of credit unions that are small entities have no closed-end mortgage originations.[232] About 90 percent of non-DI mortgage originators have revenues below the relevant Small Business Administration threshold.[233]

Table 1. Estimated number of affected entities and small entities by NAICS code

Category	NAICS Code	Total Entities	Small Entities	Entities That Originate Any Mortgage Loans[b]	Small Entities that Originate Any Mortgage Loans
Commercial Banking	522110	6,505	3,601	6,307[a]	3,466[a]
Savings Institutions	522120	930	377	922[a]	373[a]
Credit Unions[c]	522130	7,240	6,296	4,178[a]	3,240[a]
Real Estate Credit[d,e]	522292	2,787	2,294	2,787	2,294[a]
Total		17,462	12,568	14,194	9,373
Source: 2011 HMDA, Dec 31, 2011 Bank and Thrift Call Reports, Dec 31, 2011 NCUA Call Reports, Dec 31, 2011 NMLSR Mortgage Call Reports.					
[a] For HMDA reporters, loan counts from HMDA 2011. For institutions that are not HMDA reporters, loan counts projected based on Call Report data fields and counts for HMDA reporters. [b] Entities are characterized as originating loans if they make one or more loans.					
[c] Does not include cooperativas operating in Puerto Rico. The Bureau has limited data about these institutions or their mortgage activity.					
[d] NMLSR Mortgage Call Report (MCR) for 2011. All MCR reporters that originate at least one loan or that have positive loan amounts are considered to be engaged in real estate credit (instead of purely mortgage brokers). For institutions with missing revenue values, the probability that institution was a small entity is estimated based on the count and amount of originations and the count and amount of brokered loans.					
[e] Data do not distinguish nonprofit from for-profit organizations, but Real Estate Credit presumptively includes nonprofit organizations.					

D. Impact of Revised Thresholds on Depository Institutions

1. Closed-End HOEPA Lending by Small Depository Institutions

To assess the final rule's impacts, the analysis aims to estimate the counterfactual set of loans that would have met the definition of a high-cost mortgage if the revised thresholds had been in effect in 2011.[234] One can

[229] The information on whether a loan was a high-cost mortgage has been collected in HMDA since 2004.

[230] These percentages correspond to nearly 36,000 loans in 2005 and roughly 2,400 loans in 2011.

[231] The statistics for 2004–2010 are drawn from Federal Reserve *Bulletin* articles that summarize the HMDA data each year. In contrast, the 2011 numbers are based on the analysis of 2011 HMDA data and may differ slightly from those presented in the *Bulletin* article that summarizes the 2011 HMDA data due to subsequent data revisions and small differences in definitions (*e.g.,* not counting a loan as a high-cost mortgage even if it is flagged as a high-cost mortgage if it appears ineligible to be a high-cost mortgage because the property is not owner-occupied.)

[232] The estimates in this analysis are based upon data and statistical analyses performed by the Bureau. To estimate counts and properties of mortgages for entities that do not report under HMDA, the Bureau has matched HMDA data to Call Report data and NMLS and has statistically projected estimated loan counts for those depository institutions that do not report these data either under HMDA or on the NCUA call report. These projections use Poisson regressions that estimate loan volumes as a function of an institution's total assets, employment, mortgage holdings and geographic presence.

[233] The Bureau expects that the economic impact of the final rule on mortgage brokers that are small entities (for example, the provision prohibiting brokers from recommending default) would not be significant.

[234] The HMDA data contain a flag which indicates whether a loan was classified as a high-cost mortgage as well as a variable that reports the spread between the loan's APR and the APOR for higher-priced mortgage loans. Higher-priced mortgage loans are first-liens for which this spread is at least 1.5 percentage points and subordinate liens with a spread of 3.5 percentage points or greater. Importantly, the ''higher-priced'' mortgage

Continued

identify 2011 HMDA loans that would have met the revised APR thresholds based on information in the HMDA data. In contrast, the Bureau is not aware of an approach to directly determine whether a loan in the 2011 HMDA data would meet the revised points-and-fees threshold and, hence, whether the loan would have been flagged as a high-cost mortgage. To overcome this data limitation, the Bureau modeled the probability that a loan would have been flagged as a high-cost mortgage in HMDA as a function of: (i) the loan amount and (ii) the difference between the loan's APR and the APR threshold.[235]

The changes to the APR and points-and-fees thresholds are estimated to increase the share of loans made by HMDA-reporters and potentially subject to HOEPA that are classified as high-cost mortgages from 0.09 percent of loans to 0.4 percent.[236] Under the current HOEPA regulations, fewer than 5 percent of small depository institutions are estimated to make *any* high-cost mortgages, and only about 0.2 percent of small DIs are estimated to have made at least 10 high-cost mortgages in 2011 (Table 2). As expected, the estimates imply that the shares of lenders would have been larger if the revised thresholds had been in place.[237] Nevertheless, by these estimates, high-cost mortgages would have remained a small fraction of closed-end originations by small DIs, and the majority of small DIs would have made no high-cost mortgages under the revised thresholds.[238]

TABLE 2—ESTIMATED NUMBER OF SMALL DIS THAT ORIGINATE ANY HIGH-COST MORTGAGES OR 10 OR MORE HIGH-COST MORTGAGES UNDER THE CURRENT AND REVISED HOEPA THRESHOLDS

	Pre-Dodd-Frank Act	Post-Dodd-Frank Act
Estimated number that make any high-cost mortgages	501	1710
Percent of small depository institutions	4.9%	16.6%
Estimated number that make 10 or more high-cost mortgages	22	48
Percent of small depository institutions	0.2%	0.5%

2. Costs to Small Depository Institutions From Changes in Closed-End Originations

To gauge the potential effect of the Dodd-Frank Act amendments to HOEPA related to closed-end high-cost mortgages, the Bureau approximates the potential revenue loss to DIs that report in HMDA based on the estimated share, from HMDA, of home-secured loan originations that would be high-cost mortgages and the share of total income (for banks and thrifts) or total outstanding balances (for credit unions) accounted for by mortgages based on Call Report data.[239]

The Bureau estimates that high-cost closed-end mortgages account for just a fraction of revenue for most small DIs under both the current and revised thresholds (Table 3). The Bureau estimates that, post-Dodd-Frank Act, 6.8 percent of small DIs might lose more than 1 percent of revenue, compared with 2.2 percent of small DIs under the current thresholds. At most, about two percent of small DIs would have revenue losses greater than 3 percent if these creditors chose to make no closed-end high-cost mortgages.

loan thresholds are well below the APR thresholds for HOEPA. The spread is calculated as of the date the loan's rate was set. Based on these variables, the analysis defines as a high-cost mortgage any HMDA loan that is either flagged as a high-cost mortgage or that has an estimated APR spread that exceeds the relevant HOEPA threshold. The current HOEPA APR threshold is relative to a comparable Treasury security, but the reported spread in HMDA is relative to APOR, so it is not possible to determine with certainty whether a HMDA loan meets the current APR threshold, and not all loans that are estimated to be above the APR threshold are flagged as high-cost mortgages. The Bureau also considered a narrower definition of a high-cost mortgage, namely, any loan that was identified as a high-cost mortgage in the HMDA data. Conclusions based on this alternative definition are qualitatively similar to those under the primary, more conservative definition described above.

[235] The statistical model captures the effect of the changes in the APR thresholds through the fact that the gap between the thresholds and APR would generally narrow, which increases the estimated probability that a loan would have been flagged as a high-cost mortgage. Modeling the probability as a function of loan size indirectly approximates the effect of the Dodd-Frank Act revisions to the points-and-fees thresholds. More specifically, the points-and-fees threshold is defined, in part, based on points and fees as a percentage of the loan amount, so that, given two loans with identical points and fees, the loan with a smaller loan amount should be more likely to be flagged as a high-cost mortgage. Indeed, high-cost mortgages are more prevalent for loans with smaller loan amounts in HMDA. Thus, this appears to provide a reasonable approach to capturing variation in the likelihood that a loan is a high-cost mortgage. The Bureau solicited public comment seeking information or data (including data on points and fees or on prepayment penalties) from interested parties that could be used to refine or evaluate this approximation, but the Bureau did not receive any such information or data.

[236] Loans potentially subject to HOEPA coverage in this context are loans for non-business purposes secured by a lien on an owner-occupied 1–4 family property, including manufactured homes. In addition, the estimate of the share of loans subject to HOEPA coverage currently excludes purchase money mortgages, which are included in the estimate of this share under the final rule. The estimated share of loans currently classified as high-cost mortgages is about 0.06 percent if purchase-money mortgages are included in the set of loans considered.

[237] The estimates of the share of loans that would be classified as high-cost mortgages if the revised thresholds had been in place are, more precisely, estimates of the number of loans potentially classified as high-cost mortgages and do not account for lenders' decision to originate or not originate a loan based on high-cost mortgage status. If some lenders avoid making high-cost mortgages, this estimate would be an upper bound on the number of high-cost mortgages that might be originated under the revised thresholds. The estimated number of high-cost mortgages in the absence of lenders' responses is the relevant estimate for gauging the maximum loss in revenue that could occur for a lender that chose to make no high-cost mortgages under the revised thresholds.

[238] The share of small DIs estimated to make any high-cost mortgages under the revised HOEPA thresholds is substantially higher in this analysis than in the analysis conducted at the proposal stage. This primarily reflects a difference in how the results are reported. The previous analysis only counted lenders that were estimated to make at least one high-cost mortgage under the revised thresholds as making a high-cost mortgage. This analysis counts lenders that are estimated to have a small, but non-zero, probability of making a high-cost mortgage, weighted by that probability. Note that this does not increase the share of small DIs estimated to make 10 or more high-cost mortgages. These and other estimates in this analysis can of course differ from estimates presented in the proposal due to, for example, refinements in the estimation methodology and the incorporation of updated data.

[239] Data on interest and fee income are not available in the credit union Call Report data. This calculation assumes that interest and fee income for HOEPA and non-high-cost mortgages are comparable at banks and thrifts and assumes that the share of outstanding balances accounted for by mortgages is a reasonable proxy for the share of mortgage revenue for a given credit union.

TABLE 3—ESTIMATED REVENUE SHARES ATTRIBUTABLE TO CLOSED-END HIGH-COST MORTGAGE LENDING FOR SMALL DIS PRE- AND POST-DODD-FRANK ACT

	Pre-Dodd-Frank Act	Post-Dodd-Frank Act
Number with HOEPA revenue share >1% [a]	229	696
Percent of small depositories	2.2%	6.8%
Number with HOEPA revenue share >3% [a]	76	225
Percent of small depositories	0.7%	2.2%

[a] Revenue shares for commercial banks and savings institutions are based on interest and fee income from loans secured by 1–4 family homes (including HELOCst, which cannot be distinguished) as a share of total interest and non-interest income. NCUA Call Report data for credit unions do not contain direct measures of income from mortgages and other sources, so the mortgage revenue share is assumed to be proportional to the dollar value of closed- and open-end real-estate loans and lines of credit as a share of total outstanding balances on loans and leases.

3. Open-End HOEPA Lending by Small Depository Institutions

Call Report data for banks and thrifts indicate that nearly all banks and thrifts that make home-equity lines of credit also make closed-end mortgages, so the estimated numbers of affected entities are essentially identical to those shown in the first two rows of Table 1 when considering institutions that make either open- or closed-end mortgages.[240] Based on the credit union Call Report data, the Bureau estimates that 248 credit unions—all but two of which were small entities—originated HELOCs but no closed-end mortgages in 2011. Thus, the Bureau estimates that 4,426 credit unions and 3,486 small credit unions would potentially be affected by either the changes to closed-end thresholds or the extension of HOEPA to HELOCs. With regard to non-DIs, the Bureau estimates that few, if any, non-DIs that are small entities make HELOCs because non-DIs generally are less likely to be able to fund lines of credit and to have access to the payment system.

4. Effect of the Dodd-Frank Act on Open-End HOEPA Lending

HELOCs account for more than ten percent of the value of outstanding loans and leases for about 12–13 percent of small DIs, and they comprise more than one-quarter of outstanding balances on loans and leases for only about 2–3 percent of small DIs (Table 4).

TABLE 4—HELOCS REPRESENT A MODEST PORTION OF MOST SMALL DEPOSITORIES' LENDING

	Percent of DIs [a]	Number of DIs [a]
HELOCs > 10% of all loans/leases	11.6–13.2	1,196–1,354
HELOCs > 25% of all loans/leases	2.3–3.0	233–304

[a] First-lien HELOCs cannot be distinguished from other first liens in the credit union Call Report data. The ranges reflect alternative assumptions on the value of credit union's HELOC receivables: the lower bound assumes that no first liens are HELOCs, and the upper bound assumes that all adjustable-rate first liens with an adjustment period of one year or less are HELOCs.

5. Direct Costs Associated With the Dodd-Frank Act for Open-End High-Cost Mortgages

Data from SCF indicate that an estimated 3.2 percent of outstanding HELOCs would potentially meet the APR thresholds. The analysis of closed-end mortgages for HMDA reporters imply that about 55 percent of loans that meet any HOEPA threshold meet the APR threshold. Thus, combining these estimates suggests that about 5.8 percent of HELOCs might meet the HOEPA thresholds.[241]

The SCF is the only source of nationally representative data on interest rates on consummated HELOCs that the Bureau is aware of, but the Bureau acknowledges that the SCF provides a small sample of HELOCs. Thus, in addition to the approximation error in extrapolating from closed-end mortgages to HELOCs due to data limitations, the SCF-based estimate of 3.2 percent is likely imprecisely estimated but reflects the best available estimate given existing data. Given these caveats, the analysis considers how the conclusions would differ if one assumed that a greater fraction of HELOCs would meet the HOEPA thresholds. For context, as noted above, the Bureau estimates that roughly 0.4 percent of closed-end mortgages reported in HMDA would be high-cost mortgages, a percentage that is about one-fifteenth of the estimate for HELOCs, which might suggest that the HELOC estimate is conservative.

The Bureau estimates that, if the rough estimate of 5.8 percent described above were accurate, about 600 small DIs (about six percent of small DIs) would experience a revenue loss that exceeds one percent (Table 5). If the actual proportion of high-cost HELOCs were a bit more than 50 percent higher than the Bureau estimates, *i.e.,* at 9 percent, then the estimated share of small depositories that might experience a 1 percent revenue loss increases to not quite 11 percent, and about 1.4 percent of small DIs might experience a loss greater than 3 percent of revenue by these estimates. Under the even more conservative assumption that 12 percent of HELOCs are high-cost mortgages (*i.e.,* more than double the SCF-based estimate), about 14 percent of small DIs might be expected to lose greater than 1 percent of revenue, and less than 3 percent of DIs would have estimated losses that exceed 3 percent of revenue.

[240] Seven of the 5,297 commercial banks and savings institutions with outstanding revolving mortgage receivables reported neither outstanding closed-end receivables nor originations in HMDA. Five of these were small depositories.

[241] The share of high-cost HELOCs that meet the APR threshold arguably might be greater or less than the share for closed-end high-cost mortgages. On the one hand, HELOCs tend to be for smaller amounts, so points and fees may tend to be a larger percent of loan size. On the other hand, the Bureau believes that points and fees may be less prevalent for HELOCs than for closed-end mortgages.

TABLE 5—ESTIMATED SHARES OF REVENUE FROM POST-DODD-FRANK ACT HIGH-COST HELOCS FOR SMALL DEPOSITORY INSTITUTIONS

	Assumed share of post-DFA high-cost HELOCS		
	5.8 percent	9 percent	12 percent
Number with HOEPA revenue share >1% [a]	606	1,110	1,473
Percent of small depository institutions	5.9%	10.8%	14.3%
Number with HOEPA revenue share >3% [a]	31	139	300
Percent of small depository institutions	0.3%	1.4%	2.9%

[a] First-lien HELOCs cannot be distinguished from other first liens in the credit union Call Report data. The estimated revenue shares assume all adjustable-rate first liens with an adjustment period of one year or less are HELOCs (corresponding to the upper bound estimates in Table 4).

For depository institutions, the potential loss in revenue due to the Dodd-Frank Act revisions to HOEPA comprises the losses from both closed- and open-end lending. To assess the potential revenues losses for DIs from both sources, the Bureau first estimates the combined loss based on the assumption that 12 percent of HELOCs would be high-cost mortgages.[242] Under this quite conservative assumption, the Bureau estimates that roughly 22 percent of small DIs would lose more than one percent of revenue if these creditors made neither closed-end nor open-end high-cost mortgages, and fewer than 6 percent of small DIs would lose 3 percent of revenue under this scenario. The Bureau believes that this estimate provides an extremely conservative upper bound on the revenue losses that a small DI might incur for at least three reasons. First, the estimate assumes that all of these small DIs cease making all loans that will be covered; in fact, lenders may continue to extend these loans, especially if they constitute an important source of revenue. Second, rather than forgo making these loans entirely, lenders may offer alternative loans that do not exceed the HOEPA thresholds. This may result in some loss of revenue, relative to loans above the thresholds, but not all of the revenue associated with the loan. Finally, the SCF-based estimate is the best available estimate of the current share of HELOCs that might meet the HOEPA threshold, but it is likely quite imprecisely estimated. The Bureau notes that the share of HELOCs that might exceed the APR threshold in the three prior waves of the SCF was below 2 percent, versus the 3.2 percent estimate from the 2010 SCF. If the share of HELOCs that might exceed the APR threshold is in fact 2 percent, that would substantially reduce the estimated share of small DIs that would experience 1 percent or 3 percent reductions in revenue.

If instead 9 percent of HELOCs were high-cost mortgages—a proportion more than 50 percent greater than the estimate based on the SCF and therefore still conservative—the Bureau estimates approximately 19 percent of small DIs would have combined losses that exceed 1 percent of revenue, and about 4 percent of small DIs would lose more than 3 percent of revenue.[243]

E. Impact of Revised Thresholds on Non-Depository Institutions Closed-End HOEPA Lending by Small Non-Depository Institutions

The Bureau estimates based on the MCR data that 2,294 out of 2,787 total non-depository mortgage originators are small entities (Table 1). According to the MCR data, many non-DI creditors originate just a few loans. Just less than one-third of nonbank creditors are estimated to have originated ten or fewer loans, for example, and over 40 percent of non-DIs made at most 25 loans. These fractions are even greater for small non-DIs as well.[244]

The Bureau estimates that the number of high-cost mortgages originated by non-DIs that report in HMDA would increase from fewer than 200 loans under the current thresholds to over 12,000 if the post-Dodd-Frank Act thresholds applied.[245] The Bureau notes that this is a substantial increase. However, even with this large estimated increase in the absolute number of high-cost mortgages, the Bureau estimates that this number corresponds to less than 0.8 percent of all closed-end credit transactions potentially subject to HOEPA coverage originated by non-DIs that report in HMDA. Moreover, roughly 80 percent of the estimated increase is driven by two creditors that made no loans in 2011 that were flagged as high-cost mortgages in HMDA but that account for the majority of the new high-cost mortgages. Three additional creditors account for another roughly 5 percent of the new high-cost mortgages. The majority of originations by these five creditors were mortgages on manufactured homes, particularly purchase-money mortgages. Based on the number of originations, the Bureau believes that the largest creditors for manufactured homes are not small entities. The increase in the number of loans covered therefore very likely overstates the impact on small entities.

In estimating the effects of the Dodd-Frank Act revisions to HOEPA on non-DIs' revenues, the Bureau assumes that the share of revenue from HOEPA lending is the same as the share of HOEPA originations for a given creditor. Thus, to examine the impact of the final rule on revenue for non-DIs, the Bureau estimates the probability that high-cost mortgages comprise more than 1 percent, 3 percent, or 5 percent of all originations for non-DIs that report in the 2010 HMDA data and extrapolates these estimates for non-DIs that do not report in HMDA.[246]

Under this assumption, the MCR data indicate that high-cost mortgages accounted for more than 1 percent of revenue for about 5 percent of small non-DIs in 2011 (Table 6) and for more than 5 percent of revenue for a slightly smaller fraction.[247] Roughly one fifth of

[242] This calculation is based on estimating the potential revenue loss on HELOCs for each depository based on information in the Call Report data. This estimate is combined with an estimate of losses on closed-end mortgages for HMDA reporters. The Bureau then estimates the probability that a DI that does not report in HMDA would have a combined revenue loss of more than one percent based on the institution type, assets, and the estimated potential percentage revenue loss on HELOCs.

[243] The corresponding estimates for all DIs are comparable.

[244] Over half of non-DI originators also broker loans. Revenue from brokering or other sources may mitigate the potential revenue losses of the Dodd-Frank Act amendments on those creditors.

[245] Unlike the Call Report data for DIs, however, the Bureau cannot currently match the MCR data to HMDA to project HOEPA lending under the post-Dodd-Frank Act thresholds by non-DIs that do not report in HMDA.

[246] The extrapolation is done based on the number of originations and whether the non-DI originated any HOEPA loans in 2011 under the current HOEPA thresholds.

[247] These estimates are based in part on modeling revenue, and therefore the likelihood that a non-DI is a small entity, because data on revenue are missing for the majority of originators in the MCR data.

small non-DIs are estimated to have more than1 percent of revenue from high-cost mortgages under the new APR and points-and-fees thresholds, and about 11 percent and 7 percent of small non-DIs are estimated to have more than 3 percent of revenue or 5 percent of revenue, respectively, from high-cost mortgages.[248]

TABLE 6—ESTIMATED SHARES OF HIGH-COST MORTGAGE ORIGINATIONS FOR SMALL NON-DIS PRE- AND POST-DODD-FRANK ACT [a]

	Pre-DFA		Post-DFA	
	Number	Percent	Number	Percent
High-cost mortgages > 1% of all loans	116	5.1	461	20.1
High-cost mortgages > 3% of all loans	116	5.1	258	11.3
High-cost mortgages > 5% of all loans	115	5.0	161	7.0

[a] Number and percent of post-Dodd-Frank Act HOEPA originations are projected based on estimated post-Dodd-Frank Act originations of high-cost mortgages by HMDA-reporting non-DIs, conditional on total originations in 2011 and on origination of any pre-Dodd-Frank Act high-cost mortgages in 2011. In particular, in projecting the probability that a creditor made more than a given percent of high-cost mortgages post-Dodd-Frank Act, the Bureau controls for whether the creditor made any pre-Dodd-Frank Act high-cost mortgages in 2011. To estimate the number of small entities, revenue for entities that did not report revenue is estimated based on the dollar value and number of loans originated and the dollar value and number of loans brokered.

F. TILA and RESPA Counseling-Related Provisions

The final rule also implements two Dodd-Frank Act provisions related to homeownership counseling. The Bureau expects that neither of these provisions will result in a sizable revenue loss for small creditors. The first requires that a creditor obtain sufficient documentation to demonstrate that a borrower received homeownership counseling before extending a negative-amortization mortgage to a first-time borrower. This requirement will likely apply to only a small fraction of mortgages: only 0.8 percent of first-liens in the 2010 SCF reportedly had negative-amortization features, and by definition this is an upper bound on the share of negative-amortization first-lien mortgages held by first-time borrowers.[249] Moreover, the provision only requires a creditor to obtain documentation, which the Bureau expects to be a comparatively low burden. For these reasons, the Bureau believes that the burden to creditors would be minimal, as noted in Parts VII and IX.

The second provision is a new requirement that lenders provide loan applicants a list of homeownership counseling agencies from either a Web site maintained by the Bureau or data made available by the Bureau or HUD for lenders to use in complying with this requirement. Under the final rule, this requirement would apply to all applicants for a federally related mortgage (except for applicants for a reverse mortgage transaction or a mortgage secured by a timeshare) and so would apply to a large number of applications—under the Bureau's estimation methodology in analyzing the paper work burden, nearly 15 million applications for mortgages and HELOCs. Nevertheless, the Bureau believes the burden is likely to be minimal—less than $ 1 per application—because it should be straightforward to obtain and to provide the required information from the Web site or data made available to the lender. Further, the list will likely be provided with other documents that the applicant must receive from the lender.

G. Conclusion

The Bureau estimates that, under the final rule, only a small fraction of depository institutions would be expected to lose more than three or even more than one percent of revenue even under the conservative assumption that creditors forgo making any high-cost mortgages. For example, under the assumption that 9 percent of HELOCs fell within the HOEPA thresholds—a proportion more than 50 percent higher than the estimate based on the SCF and therefore quite conservative—the Bureau estimates that about 19 percent of small DIs would have combined losses that exceed one percent of revenue, and about 4 percent of small DIs would lose more than three percent of revenue. In all cases, the TILA and RESPA counseling provisions noted above would have little impact on these impact estimates.

For non-depository institutions, about 20 percent of small non-DIs are estimated to have more than 1 percent of revenue from high-cost mortgages under the new APR and points-and-fees thresholds, and about 11 percent of small non-DIs are estimated to have more than three percent of revenue from high-cost mortgages.[250] In all cases, the TILA and RESPA counseling provisions noted above would have little impact on these impact estimates.

Certification

Accordingly, the undersigned certifies that this rule will not have a significant economic impact on a substantial number of small entities.

IX. Paperwork Reduction Act

Certain provisions of this final rule contain ''collection of information'' requirements within the meaning of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (Paperwork Reduction Act or PRA). Under the PRA, the Bureau may not conduct or sponsor a collection of information unless OMB approved the collection under the PRA and the OMB control number obtained is displayed. Further, notwithstanding any other provision of law, no person is required to comply with, or is subject to any penalty for failure to comply with, a collection of information does not display a currently valid OMB control number (44 U.S.C. 3512). The Bureau's OMB control number for Regulation X is

[248] The extrapolation from non-DIs that report in HMDA to non-DIs that do not report in HMDA assumes that patterns of lending among non-reporters are similar to patterns at reporters that have comparable originations and that did or did not make high-cost mortgages. The extrapolation is subject to the caveat that, in classifying lenders based on origination volumes, it does not distinguish between originations of purchase-money mortgages compared with refinance or home-improvement loans. As noted, the post-Dodd-Frank Act revisions to HOEPA may particularly increase the share of high-cost mortgages among creditors that specialize in home purchase loans, including creditors that specialize in loans for purchasing manufactured homes.

[249] For context, the comparable shares of loans that allowed for negative amortization in the 1989–2004 SCFs varied between 1.3–2.3 percent of loans, and the 2007 SCF estimate was 0.3 percent. These percentages are based on the share of mortgage borrowers who said their payment did not change when the interest rate on their adjustable-rate mortgage changed.

3170–0016 and for Regulation Z is 3170–0015.

This Final Rule contains an information collection requirement that has not been approved by the OMB and, therefore, is not effective until OMB approval is obtained. The unapproved information collection requirement is contained in § 1024.20 of the regulation. The Bureau will publish a separate notice in the **Federal Register** announcing the submission of this information collection requirement to OMB as well as OMB's action on this submission including the OMB control number and expiration date. The Final Rule also comprises information collections contained in §§ 1026.32, 1026.34(a)(5), and 1026.36(k) of the regulation that have been pre-approved.

On August 15, 2012, notice of the proposed rule was published in the **Federal Register** (FR). The Bureau invited comment on:

(1) Whether the proposed collection of information is necessary for the proper performance of the Bureau's functions, including whether the information has practical utility;

(2) The accuracy of the Bureau's estimate of the burden of the proposed information collection, including the cost of compliance;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) Ways to minimize the burden of information collection on respondents, including through the use of automated collection techniques or other forms of information technology.

The comment period for the final rule expired on October 15, 2012.

In conjunction with the proposal, the Bureau received comments on the merits of various aspects of the final rule, including the burden of compliance generally. These comments relate to core issues in the proposal, and the Bureau's consideration of these comments is discussed above. Several commenters stated generally that the Bureau underestimated the compliance burden. However, very few comments specifically addressed specific estimates, assumptions or calculations used to derive the paperwork burden estimates for the Bureau's amendments to Regulation Z. One commenter did provide an alternative specific estimate—6400 hours for each lender—of the time cost for legal and compliance staff to review the rule (including both the Regulation X and Regulation Z components). The commenter did not detail the basis for this estimate, and the Bureau believes it overestimates, possibly to a substantial degree, the time required for legal and compliance staff to review the rule. The Bureau also notes that its methodology estimating the time cost of reviewing regulations bears similarities to those taken by other agencies. The Bureau is largely restating its burden estimates from the proposed rule for Regulation Z, though, to provide better public information, the analysis includes revised estimates that reflect, *e.g.,* updated data.

The Bureau also received a few comments addressing the paperwork burden of providing a list of homeownership counseling organizations in connection with each mortgage loan application, as required by the Bureau's amendments to Regulation X. For example, one large bank stated that the new counselor list requirement would require manually generating a separate list for each applicant. The commenter argued that hundreds of hours per day would be required to generate and provide the disclosure lists and that the proposal could result in as many as 42,000 versions of the disclosure. Other commenters generally asserted that the Bureau underestimated the paperwork burden that will accompany generating and providing a counselor list in connection with every mortgage application. As discussed in the analysis of § 1024.20 above, some commenters provided suggestions for minimizing their compliance burden, which also impact their paperwork burden. The Bureau is modifying § 1024.20 in response to these comments by, for example, exempting some types of loans from the list requirement, reducing uncertainty regarding compliance with the requirement for lenders through the use the Web site portal that the Bureau will provide, and giving lenders the option to comply through the use of data they can import into their systems to create the list.

This final rule amends 12 CFR part 1024 (Regulation X) and 12 CFR part 1026 (Regulation Z). Both Regulations X and Z currently contain collections of information approved by OMB. RESPA and Regulation X are intended to provide consumers with greater and timelier information on the nature and costs of the residential real estate settlement process. As previously discussed, the final rule amends the information collections currently required by Regulation X by requiring that lenders distribute to applicants for most federally related mortgage loans a list of homeownership counseling organizations located in the area of the applicant. *See* the section-by-section analysis to § 1024.20, above. TILA and Regulation Z are intended to ensure effective disclosure of the costs and terms of credit to consumers. As previously discussed, the final rule amends the information collections currently required by Regulation Z by expanding the categories of loans for which a special HOEPA disclosure is required and requiring creditors to receive and review confirmation that prospective borrowers of high-cost mortgages and, in the case of first-time borrowers, negatively amortizing mortgage loans have received required pre-loan counseling. *See generally* the section-by-section analysis to § 1026.32(a)(1) and (c), § 1026.34(a)(5), and § 1026.36(k).

The information collection in the final rule is required to provide benefits for consumers and is mandatory. *See* 15 U.S.C. 1601 *et seq.;* 12 U.S.C. 2601 *et seq.* Because the Bureau does not collect any information under the final rule, no issue of confidentiality arises. The likely respondents would be depository institutions (*i.e.,* commercial banks/savings institutions and credit unions) and non-depository institutions (*i.e.,* mortgage companies or other non-bank lenders) subject to Regulation X or the high-cost mortgage requirements or negative amortization loan counseling requirements of Regulation Z.[251]

Under the final rule, the Bureau accounts for the entire paperwork burden for respondents under Regulation X. The Bureau generally also accounts for the paperwork burden associated with Regulation Z for the following respondents pursuant to its administrative enforcement authority: insured depository institutions with more than $10 billion in total assets, their depository institution affiliates, privately insured credit unions, and certain non-depository lenders. The Bureau and the FTC generally both have enforcement authority over non-depository institutions for Regulation Z. Accordingly, the Bureau has allocated to itself half of the estimated burden to non-depository institutions, and the Bureau has also allocated to itself half of the estimated burden for privately insured credit unions. Other Federal agencies are responsible for estimating and reporting to OMB the total paperwork burden for the institutions for which they have administrative enforcement authority. They may, but

[251] For purposes of this PRA analysis, references to ''creditors'' or ''lenders'' shall be deemed to refer collectively to commercial banks, savings institutions, credit unions, and mortgage companies (*i.e.,* non-depository lenders), unless otherwise stated. Moreover, reference to ''respondents'' shall generally mean all categories of entities identified in the sentence to which this footnote is appended, except as otherwise stated or if the context indicates otherwise.

are not required to, use the Bureau's burden estimation methodology.

Using the Bureau's burden estimation methodology, the total estimated burden under the changes to Regulation X for all of the nearly 15,000 institutions subject to the final rule, would be approximately 28,000 hours for one-time changes and nearly 250,000 hours annually. Using the Bureau's burden estimation methodology, the total estimated burden under the changes to Regulation Z for the roughly 3,000 institutions, including Bureau respondents,[252] that are estimated to make high-cost mortgages subject to the final rule would be approximately 23,000 hours of one-time costs and about 1,800 hours annually.

The aggregate estimates of total burdens presented in this part VIII are based on estimated costs that are weighted averages across respondents. The Bureau expects that the amount of time required to implement each of the changes for a given institution may vary based on the size, complexity, and practices of the respondent.

A. Information Collection Requirements

The Bureau believes the following aspects of the final rule would be information collection requirements under the PRA.

1. Provision of List of Homeownership Counselors

The Bureau estimates one-time and ongoing costs to respondents of complying with the housing counselor disclosure requirements in § 1024.20 as follows.

One-time costs. The Bureau estimates that covered persons would incur one-time costs associated with reviewing the regulation and training relevant employees. Specifically, the Bureau estimates that, for each covered person, one attorney and one compliance officer would each take 7.5 minutes (15 minutes in total) to read and review the sections of the regulation that describe the housing counseling disclosures, based on the length of the sections. The Bureau also estimates that each loan officer or other loan originator and an equal number of loan processors will need to receive 7.5 minutes of training concerning the disclosures.[253] The Bureau estimates the total one-time costs across all relevant providers of reviewing the relevant portions of the regulation and conducting training to be about 28,000 hours and $1,200,000, or about $240,000 per year if annualized over five years. Table 1, below, shows the Bureau's estimate of the total one-time paperwork burden to all respondents to comply with the housing counselor disclosure requirements in § 1024.20.

Ongoing costs. On an ongoing basis, the Bureau estimates that producing and providing the required list of housing counseling organizations to an applicant will take approximately one minute and that the cost of producing the required disclosures (*e.g.,* paper and printing costs) will be $0.10 per disclosure.[254] The estimated ongoing paperwork burden to all Bureau respondents taken together is approximately 246,000 burden hours and about $7.8 million annually, or less than 55 cents per loan application. Table 2, below, shows the Bureau's estimates of the total ongoing annual paperwork burden to all Bureau respondents to comply with the requirement to provide mortgage loan applicants with a list of homeownership counseling organizations.

2. Receipt of Certification of Counseling for High-Cost Mortgages

The Bureau estimates one-time and ongoing costs to respondents of complying with the requirement to receive the high-cost mortgage counseling certification, as required by § 1026.34(a)(5)(i) and (iv), as follows. The Bureau estimates that 40 depository institutions and 436 non-depository institutions subject to the Bureau's administrative enforcement authority would originate high-cost mortgages.[255] The Bureau estimates that this universe of relevant providers would each incur a one-time burden of 24 minutes for compliance or legal staff to read and review the relevant sections of the regulation (12 minutes for each of two compliance or legal staff members). The Bureau also estimates that this universe of relevant providers would incur a one-time burden of 7.5 minutes each to conduct initial training for each loan officer or other loan originator concerning the receipt of certification of counseling. The Bureau estimates that the total one-time burden across all relevant providers of complying with the high-cost mortgage housing counseling certification requirement would be about 1,400 hours and roughly $68,000.

On an ongoing basis, the Bureau estimates that respondents would incur a burden of 2 minutes per origination to receive and review the certification form. In addition, the Bureau estimates that, on average, a creditor would incur a cost of $0.025 to retain the certification form. The Bureau estimates that the total ongoing burden across all relevant providers of complying with the high-cost mortgage housing counseling certification requirement would be about 500 hours and $25,000 annually. The Bureau's estimates of the total one-time and ongoing annual paperwork burden to all Bureau respondents to comply with the requirement to receive certification of high-cost mortgage counseling are set forth in Tables 1 and 2, below.

[252] There are 153 depository institutions (and their depository affiliates) that are subject to the Bureau's administrative enforcement authority. In addition there are 146 privately insured credit unions that are subject to the Bureau's administrative enforcement authority. For purposes of this PRA analysis, the Bureau's respondents under Regulation Z are 136 depository institutions that originate either open or closed-end mortgages; 90 privately insured credit unions that are estimated to originate either open- or closed-end mortgages; and an estimated 2,787 non-depository institutions that are subject to the Bureau's administrative enforcement authority. Unless otherwise specified, all references to burden hours and costs for the Bureau respondents for the collection under Regulation Z are based on a calculation of half of the estimated 2,787 nondepository institutions and 90 privately insured credit unions.

[253] The burden-hour estimate of training assumes that a total of 30 minutes is required for training on all aspects of the proposed rule. For simplicity, these time estimates assume that an equal amount of time is spent on each of the four provisions, but the Bureau expects the proportion of time allocated to each topic in the 30 minute total training time may vary. The estimation methodology also assumes that a trainer will spend an hour for every ten hours of trainee time.

[254] The estimated ongoing costs reflect the Bureau's expectation that producing the list of housing counseling organizations will require only a limited number of pieces of information and that the required information will be readily obtainable (*e.g.,* the ZIP code of the applicant). In the proposed rule, the Bureau estimated the ongoing costs under the assumption that the housing counseling organization disclosure would be produced and provided by a loan officer. In contrast, the estimated ongoing costs of providing the disclosure in the final rule are based on the assumption that the disclosure is prepared by a loan processor. Accordingly, the estimated one-time training costs associated with this information collection reflects training costs for not only loan officers (as in the proposed rule) but also loan processors. The Bureau believes it is more likely that a loan processor will produce and provide the disclosure along with other documents that are typically prepared by loan processors and provided to mortgage applicants.

[255] In the case of high-cost mortgages, TILA defines ''creditor'' as a person that, in any 12 month period, originates two or more high-cost mortgages, or one or more high-cost mortgage through a broker. For purposes of determining the universe of relevant providers for this provision, the Bureau does not attempt to calculate how many of the respondents that have made HOEPA loans in the past made only one HOEPA loan. Thus, the number of relevant providers used to calculate the paperwork burden for this provision may be an overestimate.

3. Receipt of Documentation of Counseling for Negative Amortization Loans

The Bureau does not separately estimate the paperwork burden to respondents of complying with the requirement to receive documentation that first-time borrowers in negatively amortizing loans have received pre-loan homeownership counseling, as required by § 1026.36(k). The Bureau believes that any such burden will be minimal. The universe of respondents for this provision is negligible. Based on data from the 2010 Survey of Consumer Finances, the Bureau estimates that only 0.8 percent of all outstanding mortgages in 2010 had negative amortization features. This estimate is an upper bound on the share of negatively amortizing loans held by first-time borrowers. Further, the Bureau believes that few if any mortgages originated currently could potentially negatively amortize. Moreover, the Bureau believes that the burden to respondents of complying with the provision would be minimal since the required elements of the documentation are minimal, and the provision would require creditors only to receive and retain this documentation as part of the loan file.

4. HOEPA Disclosure Form

The Bureau believes that respondents will incur certain one-time and ongoing paperwork burden pursuant to § 1026.32(a)(1), which implements Dodd-Frank's extension of HOEPA coverage to purchase money mortgage loans and open-end credit plans. As a result of § 1026.32(a)(1), respondents that extend purchase money mortgage loans or open-end credit plans that are high-cost mortgages would be required to provide borrowers the special HOEPA disclosure required by § 1026.32(c). The Bureau has identified the following paperwork burdens in connection with § 1026.32(a)(1).

a. Revising the HOEPA Disclosure Form

First, the Bureau estimates the burden to creditors originating high-cost purchase money mortgage loans and high-cost HELOCs of revising the HOEPA disclosure required by § 1026.32(c). The Bureau believes that respondents making high-cost purchase money mortgage loans would incur minimal or no additional burden, because the Bureau expects that these respondents would provide the same HOEPA disclosures used for refinance and closed-end home-equity loans subject to § 1026.32.

As discussed in the section-by-section analysis to § 1026.32(c), however, the calculation of certain of the required disclosures differs between the open-end and closed-end credit contexts. Therefore, the Bureau separately estimates the burden for revising the HOEPA disclosure for respondents likely to make high-cost HELOCs. The Bureau estimates that 37 depository institutions for which it has administrative enforcement authority, including 3 privately insured credit unions, would be likely to originate a high-cost HELOC. Because non-depository institutions are generally less able to fund lines of credit and to have access to the payment system, the Bureau believes that few, if any, non-depository institutions originate open-end credit plans.

The Bureau believes that respondents that are likely to make high-cost HELOCs would incur a one-time burden, but no ongoing burden, in connection with revising the HOEPA disclosure. The one-time burden includes a total estimated burden of about 1,800 hours across all relevant providers to update their software and information technology systems to generate the HOEPA disclosure form appropriate for open-end credit plans. This estimate combines the burdens for large creditors and a fraction of smaller creditors whom the Bureau assumes would develop the necessary software and systems internally. The Bureau assumes that the remainder of smaller creditors would rely on third-party vendors to obtain a revised disclosure form for high-cost HELOCs; these small creditors are assumed to incur the dollar costs passed on from a vendor that offers the product but no hours burden. In addition, the Bureau assumes that respondents that are likely to make high-cost HELOCs would spend 7.5 minutes each training a subset of loan officers or other loan originators that may make such loans. The Bureau estimates that the training burden across all relevant providers would total nearly 1,100 hours. The total one-time burden across all relevant providers to revise the HOEPA disclosure is therefore about 2,900 hours. The Bureau estimates the corresponding dollar-cost burden is roughly $170,000, corresponding to about $34,000 per year for all respondents if this one-time cost were annualized over five years. The estimated total one-time burden is summarized in Table 1, below.

b. Providing the HOEPA Disclosure Form

Respondents that make any high-cost mortgage would incur costs to review the provisions of the regulation related to the HOEPA disclosure. These costs could vary considerably across creditors. A creditor that currently makes high-cost mortgages might be expected to have lower costs to review the relevant section of the regulation than would a creditor that has not previously made high-cost mortgages but now expects to make such loans as a result of, for example, the revised triggers and extension of HOEPA to purchase money mortgage loans and HELOCs. The Bureau's estimates are averages of these costs across lenders.

One-time costs. Based on the length of the section, the Bureau estimates the one-time burden across all relevant providers to read and review the HOEPA disclosure provision and to obtain any necessary legal guidance would be 30 minutes for each of two legal or compliance staff members. Across all relevant providers, the Bureau assumes an average one-time burden of 7.5 minutes each per loan officer or other loan originator for initial training concerning the disclosure. Under these assumptions, the total one-time burden across all relevant providers is estimated to be about 1,500 hours and approximately $81,000, or somewhat greater than $16,000 annually if the costs were divided equally over five years.

Ongoing costs. On an ongoing basis, the Bureau estimates that producing and providing the required disclosures to an applicant will take approximately 2 minutes and that the cost of producing the required disclosures will be $0.10 per disclosure. The Bureau assumes that, on average, the cost of retaining a copy of the disclosure for recordkeeping will cost $0.025 per disclosure. The Bureau estimates that, taken together, the production, provision, and record-retention costs for across all relevant providers would total approximately 500 hours and about $27,000 annually.

TABLE 1—ONE-TIME COSTS FOR ALL CFPB RESPONDENTS

Information collection	Hours	Dollars
Provision of list of housing counselors	28,000	1,200,000
Receipt of certification of counseling for high-cost mortgages	1,400	68,000

TABLE 1—ONE-TIME COSTS FOR ALL CFPB RESPONDENTS—Continued

Information collection	Hours	Dollars
Revision of HOEPA disclosure for applicability to open-end credit	2,900	170,000
Provision of HOEPA disclosure	1,500	81,000
Total burden, All Respondents	34,000	1,520,000

TABLE 2—ONGOING COSTS FOR ALL CFPB RESPONDENTS

Information collection	Hours	Dollars
Provision of list of housing counselors	246,000	7,790,000
Receipt of certification of counseling for high-cost mortgages	500	25,000
Revision of HOEPA disclosure for applicability to open-end credit	.....	.....
Provision of special HOEPA disclosure	500	27,000
Total annual burden, All Respondents	247,000	7,840,000

The Bureau has a continuing interest in the public's opinions of our collections of information. At any time, comments regarding the burden estimate, or any other aspect of this collection of information, including suggestions for reducing the burden, may be sent to: The Office of Management and Budget (OMB), Attention: Desk Officer for the Consumer Financial Protection Bureau, Office of Information and Regulatory Affairs, Washington, DC 20503, or by the Internet to *http://oira_submission@omb.eop.gov,* with copies to the Bureau at the Consumer Financial Protection Bureau (Attention: PRA Office), 1700 G Street NW., Washington, DC 20552, or by the Internet to *CFPB_Public_PRA@cfpb.gov.*

List of Subjects

12 CFR Part 1024

Condominiums, Consumer protection, Housing, Mortgagees, Mortgages, Mortgage servicing, Recordkeeping requirements, Reporting.

12 CFR Part 1026

Advertising, Consumer protection, Mortgages, Reporting and recordkeeping requirements, Truth in lending.

Authority and Issuance

For the reasons stated in the preamble, the Bureau amends Regulation X, 12 CFR part 1024, and Regulation Z, 12 CFR part 1026, as set forth below:

PART 1024—REAL ESTATE SETTLEMENT PROCEDURES ACT (REGULATION X)

■ 1. The authority citation for part 1024 continues to read as follows:

Authority: 12 U.S.C. 2603–2605, 2607, 2609, 2617, 5512, 5581.

■ 2. Section 1024.20 is added to read as follows:

§ 1024.20 List of homeownership counseling organizations.

(a) *Provision of list.* (1) Except as otherwise provided in this section, not later than three business days after a lender, mortgage broker, or dealer receives an application, or information sufficient to complete an application, the lender must provide the loan applicant with a clear and conspicuous written list of homeownership counseling organizations that provide relevant counseling services in the loan applicant's location. The list of homeownership counseling organizations distributed to each loan applicant under this section shall be obtained no earlier than 30 days prior to the time when the list is provided to the loan applicant from either:

(i) The Web site maintained by the Bureau for lenders to use in complying with the requirements of this section; or

(ii) Data made available by the Bureau or HUD for lenders to use in complying with the requirements of this section, provided that the data is used in accordance with instructions provided with the data.

(2) The list of homeownership counseling organizations provided under this section may be combined and provided with other mortgage loan disclosures required pursuant to Regulation Z, 12 CFR part 1026, or this part unless prohibited by Regulation Z or this part.

(3) A mortgage broker or dealer may provide the list of homeownership counseling organizations required under this section to any loan applicant from whom it receives or for whom it prepares an application. If the mortgage broker or dealer has provided the required list of homeownership counseling organizations, the lender is not required to provide an additional list. The lender is responsible for ensuring that the list of homeownership counseling organizations is provided to a loan applicant in accordance with this section.

(4) If the lender, mortgage broker, or dealer does not provide the list of homeownership counseling organizations required under this section to the loan applicant in person, the lender must mail or deliver the list to the loan applicant by other means. The list may be provided in electronic form, subject to compliance with the consumer consent and other applicable provisions of the Electronic Signatures in Global and National Commerce Act (E-Sign Act), 15 U.S.C. 7001 *et seq.*

(5) The lender is not required to provide the list of homeownership counseling organizations required under this section if, before the end of the three-business-day period provided in paragraph (a)(1) of this section, the lender denies the application or the loan applicant withdraws the application.

(6) If a mortgage loan transaction involves more than one lender, only one list of homeownership counseling organizations required under this section shall be given to the loan applicant and the lenders shall agree among themselves which lender will comply with the requirements that this section imposes on any or all of them. If there is more than one loan applicant, the required list of homeownership counseling organizations may be provided to any loan applicant with primary liability on the mortgage loan obligation.

(b) *Open-end lines of credit (home-equity plans) under Regulation Z.* For a federally related mortgage loan that is a home-equity line of credit subject to Regulation Z, 12 CFR 1026.40, a lender or mortgage broker that provides the

loan applicant with the list of homeownership organizations required under this section may comply with the timing and delivery requirements set out in either paragraph (a) of this section or 12 CFR 1026.40(b).

(c) *Exemptions.* (1) *Reverse mortgage transactions.* A lender is not required to provide an applicant for a reverse mortgage transaction subject to 12 CFR 1026.33(a) the list of homeownership counseling organizations required under this section.

(2) *Timeshare plans.* A lender is not required to provide an applicant for a mortgage loan secured by a timeshare, as described under 11 U.S.C. 101(53D), the list of homeownership counseling organizations required under this section.

PART 1026—TRUTH IN LENDING (REGULATION Z)

■ 3. The authority citation for part 1026 continues to read as follows:

Authority: 12 U.S.C. 2601; 2603–2605, 2607, 2609, 2617, 5511, 5512, 5532, 5581; 15 U.S.C. 1601 *et seq.*

Subpart A—General

■ 4. Section 1026.1 is amended by revising paragraph (d)(5) to read as follows:

§ 1026.1 Authority, purpose, coverage, organization, enforcement, and liability.

* * * * *

(d) * * *

(5) Subpart E contains special rules for mortgage transactions. Section 1026.32 requires certain disclosures and provides limitations for closed-end credit transactions and open-end credit plans that have rates or fees above specified amounts or certain prepayment penalties. Section 1026.33 requires special disclosures, including the total annual loan cost rate, for reverse mortgage transactions. Section 1026.34 prohibits specific acts and practices in connection with high-cost mortgages, as defined in § 1026.32(a). Section 1026.35 prohibits specific acts and practices in connection with closed-end higher-priced mortgage loans, as defined in § 1026.35(a). Section 1026.36 prohibits specific acts and practices in connection with an extension of credit secured by a dwelling.

* * * * *

Subpart E—Special Rules for Certain Home Mortgage Transactions

■ 5. Section 1026.31 is amended by revising paragraph (c)(1) and adding paragraph (h) to read as follows:

§ 1026.31 General rules.

* * * * *

(c) *Timing of disclosure.* (1) *Disclosures for high-cost mortgages.* The creditor shall furnish the disclosures required by § 1026.32 at least three business days prior to consummation or account opening of a high-cost mortgage as defined in § 1026.32(a).

(i) *Change in terms.* After complying with this paragraph (c)(1) and prior to consummation or account opening, if the creditor changes any term that makes the disclosures inaccurate, new disclosures shall be provided in accordance with the requirements of this subpart.

(ii) *Telephone disclosures.* A creditor may provide new disclosures required by paragraph (c)(1)(i) of this section by telephone if the consumer initiates the change and if, prior to or at consummation or account opening:

(A) The creditor provides new written disclosures; and

(B) The consumer and creditor sign a statement that the new disclosures were provided by telephone at least three days prior to consummation or account opening, as applicable.

(iii) *Consumer's waiver of waiting period before consummation or account opening.* The consumer may, after receiving the disclosures required by this paragraph (c)(1), modify or waive the three-day waiting period between delivery of those disclosures and consummation or account opening if the consumer determines that the extension of credit is needed to meet a bona fide personal financial emergency. To modify or waive the right, the consumer shall give the creditor a dated written statement that describes the emergency, specifically modifies or waives the waiting period, and bears the signature of all the consumers entitled to the waiting period. Printed forms for this purpose are prohibited, except when creditors are permitted to use printed forms pursuant to § 1026.23(e)(2).

* * * * *

(h) *Corrections and unintentional violations.* A creditor or assignee in a high-cost mortgage, as defined in § 1026.32(a), who, when acting in good faith, failed to comply with any requirement under section 129 of the Act will not be deemed to have violated such requirement if the creditor or assignee satisfies either of the following sets of conditions:

(1)(i) Within 30 days of consummation or account opening and prior to the institution of any action, the consumer is notified of or discovers the violation;

(ii) Appropriate restitution is made within a reasonable time; and

(iii) Within a reasonable time, whatever adjustments are necessary are made to the loan or credit plan to either, at the choice of the consumer:

(A) Make the loan or credit plan satisfy the requirements of this chapter; or

(B) Change the terms of the loan or credit plan in a manner beneficial to the consumer so that the loan or credit plan will no longer be a high-cost mortgage.

(2)(i) Within 60 days of the creditor's discovery or receipt of notification of an unintentional violation or bona fide error and prior to the institution of any action, the consumer is notified of the compliance failure;

(ii) Appropriate restitution is made within a reasonable time; and

(iii) Within a reasonable time, whatever adjustments are necessary are made to the loan or credit plan to either, at the choice of the consumer:

(A) Make the loan or credit plan satisfy the requirements of this chapter; or

(B) Change the terms of the loan or credit plan in a manner beneficial to the consumer so that the loan or credit plan will no longer be a high-cost mortgage.

■ 6. Section 1026.32 is amended by:

■ A. Revising paragraph (a);

■ B. Adding paragraphs (b)(2), (b)(3)(ii), (b)(4)(ii), and (b)(6)(ii);

■ C. Revising paragraphs (c)(3) through (5); and

■ D. Revising paragraph (d) introductory text, revising paragraphs (d)(1) and (6), removing and reserving paragraph (d)(7), and revising paragraph (d)(8).

The additions and revisions read as follows:

§ 1026.32 Requirements for high-cost mortgages.

(a) *Coverage.* (1) The requirements of this section apply to a *high-cost mortgage,* which is any consumer credit transaction that is secured by the consumer's principal dwelling, other than as provided in paragraph (a)(2) of this section, and in which:

(i) The annual percentage rate applicable to the transaction, as determined in accordance with paragraph (a)(3) of this section, will exceed the average prime offer rate, as defined in § 1026.35(a)(2), for a comparable transaction by more than:

(A) 6.5 percentage points for a first-lien transaction, other than as described in paragraph (a)(1)(i)(B) of this section;

(B) 8.5 percentage points for a first-lien transaction if the dwelling is personal property and the loan amount is less than $50,000; or

(C) 8.5 percentage points for a subordinate-lien transaction; or

(ii) The transaction's total points and fees, as defined in paragraphs (b)(1) and (2) of this section, will exceed:

(A) 5 percent of the total loan amount for a transaction with a loan amount of $20,000 or more; the $20,000 figure shall be adjusted annually on January 1 by the annual percentage change in the Consumer Price Index that was reported on the preceding June 1; or

(B) The lesser of 8 percent of the total loan amount or $1,000 for a transaction with a loan amount of less than $20,000; the $1,000 and $20,000 figures shall be adjusted annually on January 1 by the annual percentage change in the Consumer Price Index that was reported on the preceding June 1; or

(iii) Under the terms of the loan contract or open-end credit agreement, the creditor can charge a prepayment penalty, as defined in paragraph (b)(6) of this section, more than 36 months after consummation or account opening, or prepayment penalties that can exceed, in total, more than 2 percent of the amount prepaid.

(2) *Exemptions.* This section does not apply to the following:

(i) A reverse mortgage transaction subject to § 1026.33;

(ii) A transaction to finance the initial construction of a dwelling;

(iii) A transaction originated by a Housing Finance Agency, where the Housing Finance Agency is the creditor for the transaction;

(iv) A transaction originated pursuant to the United States Department of Agriculture's Rural Development Section 502 Direct Loan Program.

(3) *Determination of annual percentage rate.* For purposes of paragraph (a)(1)(i) of this section, a creditor shall determine the annual percentage rate for a closed- or open-end credit transaction based on the following:

(i) For a transaction in which the annual percentage rate will not vary during the term of the loan or credit plan, the interest rate in effect as of the date the interest rate for the transaction is set;

(ii) For a transaction in which the interest rate may vary during the term of the loan or credit plan in accordance with an index, the interest rate that results from adding the maximum margin permitted at any time during the term of the loan or credit plan to the value of the index rate in effect as of the date the interest rate for the transaction is set, or the introductory interest rate, whichever is greater; and

(iii) For a transaction in which the interest rate may or will vary during the term of the loan or credit plan, other than a transaction described in paragraph (a)(3)(ii) of this section, the maximum interest rate that may be imposed during the term of the loan or credit plan.

(b) * * *

(2) In connection with an open-end credit plan, *points and fees* means the following fees or charges that are known at or before account opening:

(i) All items included in the finance charge under § 1026.4(a) and (b), except that the following items are excluded:

(A) Interest or the time-price differential;

(B) Any premium or other charge imposed in connection with any Federal or State agency program for any guaranty or insurance that protects the creditor against the consumer's default or other credit loss;

(C) For any guaranty or insurance that protects the creditor against the consumer's default or other credit loss and that is not in connection with any Federal or State agency program:

(*1*) If the premium or other charge is payable after account opening, the entire amount of such premium or other charge; or

(*2*) If the premium or other charge is payable at or before account opening, the portion of any such premium or other charge that is not in excess of the amount payable under policies in effect at the time of account opening under section 203(c)(2)(A) of the National Housing Act (12 U.S.C. 1709(c)(2)(A)), provided that the premium or charge is required to be refundable on a pro rata basis and the refund is automatically issued upon notification of the satisfaction of the underlying mortgage transaction;

(D) Any bona fide third-party charge not retained by the creditor, loan originator, or an affiliate of either, unless the charge is required to be included in points and fees under paragraphs (b)(2)(i)(C), (b)(2)(iii) or (b)(2)(iv) of this section;

(E) Up to two bona fide discount points payable by the consumer in connection with the transaction, provided that the conditions specified in paragraph (b)(1)(i)(E) of this section are met; and

(F) Up to one bona fide discount point payable by the consumer in connection with the transaction, provided that no discount points have been excluded under paragraph (b)(2)(i)(E) of this section and the conditions specified in paragraph (b)(1)(i)(F) of this section are met;

(ii) All compensation paid directly or indirectly by a consumer or creditor to a loan originator, as defined in § 1026.36(a)(1), that can be attributed to that transaction at the time the interest rate is set;

(iii) All items listed in § 1026.4(c)(7) (other than amounts held for future payment of taxes) unless:

(A) The charge is reasonable;

(B) The creditor receives no direct or indirect compensation in connection with the charge; and

(C) The charge is not paid to an affiliate of the creditor;

(iv) Premiums or other charges payable at or before account opening for any credit life, credit disability, credit unemployment, or credit property insurance, or any other life, accident, health, or loss-of-income insurance for which the creditor is a beneficiary, or any payments directly or indirectly for any debt cancellation or suspension agreement or contract;

(v) The maximum prepayment penalty, as defined in paragraph (b)(6)(ii) of this section, that may be charged or collected under the terms of the open-end credit plan;

(vi) The total prepayment penalty, as defined in paragraph (b)(6)(ii) of this section, incurred by the consumer if the consumer refinances an existing closed-end credit transaction with an open-end credit plan, or terminates an existing open-end credit plan in connection with obtaining a new closed- or open-end credit transaction, with the current holder of the existing plan, a servicer acting on behalf of the current holder, or an affiliate of either;

(vii) Any fees charged for participation in an open-end credit plan, payable at or before account opening, as described in § 1026.4(c)(4); and

(viii) Any transaction fee, including any minimum fee or per-transaction fee, that will be charged for a draw on the credit line, where the creditor must assume that the consumer will make at least one draw during the term of the plan.

(3) * * *

(ii) *Open-end credit.* The term *bona fide discount point* means an amount equal to 1 percent of the credit limit for the plan when the account is opened, paid by the consumer, and that reduces the interest rate or time-price differential applicable to the transaction based on a calculation that is consistent with established industry practices for determining the amount of reduction in the interest rate or time-price differential appropriate for the amount of discount points paid by the consumer. See comment 32(b)(3)(i)-1 for additional guidance in determining whether a discount point is bona fide.

(4) * * *

(ii) *Open-end credit.* The total loan amount for an open-end credit plan is the credit limit for the plan when the account is opened.

* * * * *

(6) * * *

(ii) *Open-end credit.* For an open-end credit plan, *prepayment penalty* means a charge imposed by the creditor if the consumer terminates the open-end credit plan prior to the end of its term, other than a waived bona fide third-party charge that the creditor imposes if the consumer terminates the open-end credit plan sooner than 36 months after account opening.

(c) * * *

(3) *Regular payment; minimum periodic payment example; balloon payment.* (i) For a closed-end credit transaction, the amount of the regular monthly (or other periodic) payment and the amount of any balloon payment provided in the credit contract, if permitted under paragraph (d)(1) of this section. The regular payment disclosed under this paragraph shall be treated as accurate if it is based on an amount borrowed that is deemed accurate and is disclosed under paragraph (c)(5) of this section.

(ii) For an open-end credit plan:

(A) An example showing the first minimum periodic payment for the draw period, the first minimum periodic payment for any repayment period, and the balance outstanding at the beginning of any repayment period. The example must be based on the following assumptions:

(1) The consumer borrows the full credit line, as disclosed in paragraph (c)(5) of this section, at account opening and does not obtain any additional extensions of credit;

(2) The consumer makes only minimum periodic payments during the draw period and any repayment period; and

(3) The annual percentage rate used to calculate the example payments remains the same during the draw period and any repayment period. The creditor must provide the minimum periodic payment example based on the annual percentage rate for the plan, as described in paragraph (c)(2) of this section, except that if an introductory annual percentage rate applies, the creditor must use the rate that will apply to the plan after the introductory rate expires.

(B) If the credit contract provides for a balloon payment under the plan as permitted under paragraph (d)(1) of this section, a disclosure of that fact and an example showing the amount of the balloon payment based on the assumptions described in paragraph (c)(3)(ii)(A) of this section.

(C) A statement that the example payments show the first minimum periodic payments at the current annual percentage rate if the consumer borrows the maximum credit available when the account is opened and does not obtain any additional extensions of credit, or a substantially similar statement.

(D) A statement that the example payments are not the consumer's actual payments and that the actual minimum periodic payments will depend on the amount the consumer borrows, the interest rate applicable to that period, and whether the consumer pays more than the required minimum periodic payment, or a substantially similar statement.

(4) *Variable-rate.* For variable-rate transactions, a statement that the interest rate and monthly payment may increase, and the amount of the single maximum monthly payment, based on the maximum interest rate required to be included in the contract by § 1026.30.

(5) *Amount borrowed; credit limit.* (i) For a closed-end credit transaction, the total amount the consumer will borrow, as reflected by the face amount of the note. Where the amount borrowed includes financed charges that are not prohibited under § 1026.34(a)(10), that fact shall be stated, grouped together with the disclosure of the amount borrowed. The disclosure of the amount borrowed shall be treated as accurate if it is not more than $100 above or below the amount required to be disclosed.

(ii) For an open-end credit plan, the credit limit for the plan when the account is opened.

(d) *Limitations.* A high-cost mortgage shall not include the following terms:

(1)(i) *Balloon payment.* Except as provided by paragraphs (d)(1)(ii) and (iii) of this section, a payment schedule with a payment that is more than two times a regular periodic payment.

(ii) *Exceptions.* The limitations in paragraph (d)(1)(i) of this section do not apply to:

(A) A mortgage transaction with a payment schedule that is adjusted to the seasonal or irregular income of the consumer;

(B) A loan with maturity of 12 months or less, if the purpose of the loan is a ''bridge'' loan connected with the acquisition or construction of a dwelling intended to become the consumer's principal dwelling; or

(C) A loan that meets the criteria set forth in §§ 1026.43(f)(1)(i) through (vi) and 1026.43(f)(2).

(iii) *Open-end credit plans.* If the terms of an open-end credit plan provide for a repayment period during which no further draws may be taken, the limitations in paragraph (d)(1)(i) of this section do not apply to any adjustment in the regular periodic payment that results solely from the credit plan's transition from the draw period to the repayment period. If the terms of an open-end credit plan do not provide for any repayment period, the limitations in paragraph (d)(1)(i) of this section apply to all periods of the credit plan.

* * * * *

(6) *Prepayment penalties.* A prepayment penalty, as defined in paragraph (b)(6) of this section.

(7) [Reserved]

(8) *Acceleration of debt.* A demand feature that permits the creditor to accelerate the indebtedness by terminating the high-cost mortgage in advance of the original maturity date and to demand repayment of the entire outstanding balance, except in the following circumstances:

(i) There is fraud or material misrepresentation by the consumer in connection with the loan or open-end credit agreement;

(ii) The consumer fails to meet the repayment terms of the agreement for any outstanding balance that results in a default in payment under the loan; or

(iii) There is any action or inaction by the consumer that adversely affects the creditor's security for the loan, or any right of the creditor in such security.

* * * * *

■ 7. Section 1026.34 is revised to read as follows:

§ 1026.34 Prohibited acts or practices in connection with high-cost mortgages.

(a) *Prohibited acts or practices for high-cost mortgages.* (1) *Home improvement contracts.* A creditor shall not pay a contractor under a home improvement contract from the proceeds of a high-cost mortgage, other than:

(i) By an instrument payable to the consumer or jointly to the consumer and the contractor; or

(ii) At the election of the consumer, through a third-party escrow agent in accordance with terms established in a written agreement signed by the consumer, the creditor, and the contractor prior to the disbursement.

(2) *Notice to assignee.* A creditor may not sell or otherwise assign a high-cost mortgage without furnishing the following statement to the purchaser or assignee: ''Notice: This is a mortgage subject to special rules under the Federal Truth in Lending Act. Purchasers or assignees of this mortgage could be liable for all claims and

defenses with respect to the mortgage that the consumer could assert against the creditor.''

(3) *Refinancings within one-year period.* Within one year of having extended a high-cost mortgage, a creditor shall not refinance any high-cost mortgage to the same consumer into another high-cost mortgage, unless the refinancing is in the consumer's interest. An assignee holding or servicing a high-cost mortgage shall not, for the remainder of the one-year period following the date of origination of the credit, refinance any high-cost mortgage to the same consumer into another high-cost mortgage, unless the refinancing is in the consumer's interest. A creditor (or assignee) is prohibited from engaging in acts or practices to evade this provision, including a pattern or practice of arranging for the refinancing of its own loans by affiliated or unaffiliated creditors.

(4) *Repayment ability for high-cost mortgages.* In connection with an open-end, high-cost mortgage, a creditor shall not open a plan for a consumer where credit is or will be extended without regard to the consumer's repayment ability as of account opening, including the consumer's current and reasonably expected income, employment, assets other than the collateral, and current obligations including any mortgage-related obligations that are required by another credit obligation undertaken prior to or at account opening, and are secured by the same dwelling that secures the high-cost mortgage transaction. The requirements set forth in § 1026.34(a)(4)(i) through (iv) apply to open-end high-cost mortgages, but do not apply to closed-end high-cost mortgages. In connection with a closed-end, high-cost mortgage, a creditor must comply with the repayment ability requirements set forth in § 1026.43. Temporary or ''bridge'' loans with terms of twelve months or less, such as a loan to purchase a new dwelling where the consumer plans to sell a current dwelling within twelve months, are exempt from this repayment ability requirement.

(i) *Mortgage-related obligations.* For purposes of this paragraph (a)(4), mortgage-related obligations are property taxes; premiums and similar charges identified in § 1026.4(b)(5), (7), (8), and (10) that are required by the creditor; fees and special assessments imposed by a condominium, cooperative, or homeowners association; ground rent; and leasehold payments.

(ii) *Basis for determination of repayment ability.* Under this paragraph (a)(4) a creditor must determine the consumer's repayment ability in connection with an open-end, high cost mortgage as follows:

(A) A creditor must verify amounts of income or assets that it relies on to determine repayment ability, including expected income or assets, by the consumer's Internal Revenue Service Form W–2, tax returns, payroll receipts, financial institution records, or other third-party documents that provide reasonably reliable evidence of the consumer's income or assets.

(B) A creditor must verify the consumer's current obligations, including any mortgage-related obligations that are required by another credit obligation undertaken prior to or at account opening, and are secured by the same dwelling that secures the high-cost mortgage transaction.

(iii) *Presumption of compliance.* For an open-end, high cost mortgage, a creditor is presumed to have complied with this paragraph (a)(4) with respect to a transaction if the creditor:

(A) Determines the consumer's repayment ability as provided in paragraph (a)(4)(ii);

(B) Determines the consumer's repayment ability taking into account current obligations and mortgage-related obligations as defined in paragraph (a)(4)(i) of this section, and using the largest required minimum periodic payment based on the following assumptions:

(*1*) The consumer borrows the full credit line at account opening with no additional extensions of credit;

(*2*) The consumer makes only required minimum periodic payments during the draw period and any repayment period;

(*3*) If the annual percentage rate may increase during the plan, the maximum annual percentage rate that is included in the contract, as required by § 1026.30, applies to the plan at account opening and will apply during the draw period and any repayment period.

(C) Assesses the consumer's repayment ability taking into account at least one of the following: The ratio of total current obligations, including any mortgage-related obligations that are required by another credit obligation undertaken prior to or at account opening, and are secured by the same dwelling that secures the high-cost mortgage transaction, to income, or the income the consumer will have after paying current obligations.

(iv) *Exclusions from presumption of compliance.* Notwithstanding the previous paragraph, no presumption of compliance is available for an open-end, high-cost mortgage transaction for which the regular periodic payments when aggregated do not fully amortize the outstanding principal balance except as otherwise provided by § 1026.32(d)(1)(ii).

(5) *Pre-loan counseling.* (i) *Certification of counseling required.* A creditor shall not extend a high-cost mortgage to a consumer unless the creditor receives written certification that the consumer has obtained counseling on the advisability of the mortgage from a counselor that is approved to provide such counseling by the Secretary of the U.S. Department of Housing and Urban Development or, if permitted by the Secretary, by a State housing finance authority.

(ii) *Timing of counseling.* The counseling required under this paragraph (a)(5) must occur after the consumer receives either the good faith estimate required by section 5(c) of the Real Estate Settlement Procedures Act of 1974 (12 U.S.C. 2604(c)) or the disclosures required by § 1026.40.

(iii) *Affiliation prohibited.* The counseling required under this paragraph (a)(5) shall not be provided by a counselor who is employed by or affiliated with the creditor.

(iv) *Content of certification.* The certification of counseling required under paragraph (a)(5)(i) must include:

(A) The name(s) of the consumer(s) who obtained counseling;

(B) The date(s) of counseling;

(C) The name and address of the counselor;

(D) A statement that the consumer(s) received counseling on the advisability of the high-cost mortgage based on the terms provided in either the good faith estimate required by section 5(c) of the Real Estate Settlement Procedures Act of 1974 (12 U.S.C. 2604(c)) or the disclosures required by § 1026.40; and

(E) A statement that the counselor has verified that the consumer(s) received the disclosures required by either § 1026.32(c) or the Real Estate Settlement Procedures Act of 1974 (12 U.S.C. 2601 *et seq.*) with respect to the transaction.

(v) *Counseling fees.* A creditor may pay the fees of a counselor or counseling organization for providing counseling required under this paragraph (a)(5) but may not condition the payment of such fees on the consummation or account-opening of a mortgage transaction. If the consumer withdraws the application that would result in the extension of a high-cost mortgage, a creditor may not condition the payment of such fees on the receipt of certification from the counselor required by paragraph (a)(5)(i) of this section. A creditor may, however, confirm that a counselor has provided counseling to the consumer pursuant to this paragraph (a)(5) prior to paying the

fee of a counselor or counseling organization.

(vi) *Steering prohibited.* A creditor that extends a high-cost mortgage shall not steer or otherwise direct a consumer to choose a particular counselor or counseling organization for the counseling required under this paragraph (a)(5).

(6) *Recommended default.* A creditor or mortgage broker, as defined in section 1026.36(a)(2), may not recommend or encourage default on an existing loan or other debt prior to and in connection with the consummation or account opening of a high-cost mortgage that refinances all or any portion of such existing loan or debt.

(7) *Modification and deferral fees.* A creditor, successor-in-interest, assignee, or any agent of such parties may not charge a consumer any fee to modify, renew, extend or amend a high-cost mortgage, or to defer any payment due under the terms of such mortgage.

(8) *Late fees.* (i) *General.* Any late payment charge imposed in connection with a high-cost mortgage must be specifically permitted by the terms of the loan contract or open-end credit agreement and may not exceed 4 percent of the amount of the payment past due. No such charge may be imposed more than once for a single late payment.

(ii) *Timing.* A late payment charge may be imposed in connection with a high-cost mortgage only if the payment is not received by the end of the 15-day period beginning on the date the payment is due or, in the case of a high-cost mortgage on which interest on each installment is paid in advance, the end of the 30-day period beginning on the date the payment is due.

(iii) *Multiple late charges assessed on payment subsequently paid.* A late payment charge may not be imposed in connection with a high-cost mortgage payment if any delinquency is attributable only to a late payment charge imposed on an earlier payment, and the payment otherwise is a full payment for the applicable period and is paid by the due date or within any applicable grace period.

(iv) *Failure to make required payment.* The terms of a high-cost mortgage agreement may provide that any payment shall first be applied to any past due balance. If the consumer fails to make a timely payment by the due date and subsequently resumes making payments but has not paid all past due payments, the creditor may impose a separate late payment charge for any payment(s) outstanding (without deduction due to late fees or related fees) until the default is cured.

(9) *Payoff statements.* (i) *Fee prohibition.* In general, a creditor or servicer (as defined in 12 CFR 1024.2(b)) may not charge a fee for providing to a consumer, or a person authorized by the consumer to obtain such information, a statement of the amount due to pay off the outstanding balance of a high-cost mortgage.

(ii) *Processing fee.* A creditor or servicer may charge a processing fee to cover the cost of providing a payoff statement, as described in paragraph (a)(9)(i) of this section, by fax or courier, provided that such fee may not exceed an amount that is comparable to fees imposed for similar services provided in connection with consumer credit transactions that are secured by the consumer's principal dwelling and are not high-cost mortgages. A creditor or servicer shall make a payoff statement available to a consumer, or a person authorized by the consumer to obtain such information, by a method other than by fax or courier and without charge pursuant to paragraph (a)(9)(i) of this section.

(iii) *Processing fee disclosure.* Prior to charging a processing fee for provision of a payoff statement by fax or courier, as permitted pursuant to paragraph (a)(9)(ii) of this section, a creditor or servicer shall disclose to a consumer or a person authorized by the consumer to obtain the consumer's payoff statement that payoff statements, as described in paragraph (a)(9)(i) of this section, are available by a method other than by fax or courier without charge.

(iv) *Fees permitted after multiple requests.* A creditor or servicer that has provided a payoff statement, as described in paragraph (a)(9)(i) of this section, to a consumer, or a person authorized by the consumer to obtain such information, without charge, other than the processing fee permitted under paragraph (a)(9)(ii) of this section, four times during a calendar year, may thereafter charge a reasonable fee for providing such statements during the remainder of the calendar year. Fees for payoff statements provided to a consumer, or a person authorized by the consumer to obtain such information, in a subsequent calendar year are subject to the requirements of this section.

(v) *Timing of delivery of payoff statements.* A payoff statement, as described in paragraph (a)(9)(i) of this section, for a high-cost mortgage shall be provided by a creditor or servicer within five business days after receiving a request for such statement by a consumer or a person authorized by the consumer to obtain such statement.

(10) *Financing of points and fees.* A creditor that extends credit under a high-cost mortgage may not finance charges that are required to be included in the calculation of points and fees, as that term is defined in § 1026.32(b)(1) and (2). Credit insurance premiums or debt cancellation or suspension fees that are required to be included in points and fees under § 1026.32(b)(1)(iv) or (2)(iv) shall not be considered financed by the creditor when they are calculated and paid in full on a monthly basis.

(b) *Prohibited acts or practices for dwelling-secured loans; structuring loans to evade high-cost mortgage requirements.* A creditor shall not structure any transaction that is otherwise a high-cost mortgage in a form, for the purpose, and with the intent to evade the requirements of a high-cost mortgage subject to this subpart, including by dividing any loan transaction into separate parts.

■ 8. Section 1026.36 is amended by adding and reserving paragraphs (g) and (j) and adding paragraph (k) to read as follows:

* * * * *

§ 1026.36 Prohibited acts or practices in connection with credit secured by a dwelling.

* * * * *

(g) [Reserved]

* * * * *

(j) [Reserved]

(k) *Negative amortization counseling.* (1) *Counseling required.* A creditor shall not extend credit to a first-time borrower in connection with a closed-end transaction secured by a dwelling, other than a reverse mortgage transaction subject to § 1026.33 or a transaction secured by a consumer's interest in a timeshare plan described in 11 U.S.C. 101(53D), that may result in negative amortization, unless the creditor receives documentation that the consumer has obtained homeownership counseling from a counseling organization or counselor certified or approved by the U.S. Department of Housing and Urban Development to provide such counseling.

(2) *Definitions.* For the purposes of this paragraph (k), the following definitions apply:

(i) A ''first-time borrower'' means a consumer who has not previously received a closed-end credit transaction or open-end credit plan secured by a dwelling.

(ii) ''Negative amortization'' means a payment schedule with regular periodic payments that cause the principal balance to increase.

(3) *Steering prohibited.* A creditor that extends credit to a first-time borrower in connection with a closed-end

transaction secured by a dwelling, other than a reverse mortgage transaction subject to § 1026.33 or a transaction secured by a consumer's interest in a timeshare plan described in 11 U.S.C. 101(53D), that may result in negative amortization shall not steer or otherwise direct a consumer to choose a particular counselor or counseling organization for the counseling required under this paragraph (k).

■ 9. In Supplement I to Part 1026—Official Interpretations:

■ A. Under *Section 1026.31—General Rules:*

■ i. Under *31(c) Timing of disclosure:*

■ a. Under *31(c)(1),* the heading is revised.

■ b. Under newly designated *31(c)(1),* paragraph 1 is revised.

■ c. Under *31(c)(1)(i) Change in terms,* paragraph 2 is revised.

■ d. Under *31(c)(1)(ii) Telephone disclosures,* paragraph 1 is revised.

■ e. Under *31(c)(1)(iii),* the heading is revised.

■ ii. *31(h) Corrections and unintentional violations* and paragraphs 1 and 2 are added.

■ B. Under *Section 1026.32—Requirements for High-Cost Mortgages:*

■ i. Under *32(a) Coverage:*

■ a. *Paragraph 32(a)(1)* and paragraph 1 are added.

■ b. Under *Paragraph 32(a)(1)(i),* paragraphs 1, 2, and 3 are revised, and paragraph 4 is removed.

■ c. *Paragraph 32(a)(1)(i)(B)* and paragraph 1 are added.

■ d. Under *Paragraph 32(a)(1)(ii),* paragraph 1 and the introductory text of paragraph 2 are revised, and paragraph 3 is added.

■ e. *Paragraph 32(a)(1)(iii)* and paragraphs 1 and 2 are added.

■ f. Under *Paragraph 32(a)(2),* the heading is revised.

■ g. *Paragraph 32(a)(2)(ii)* and paragraph 1 are added.

■ h. *Paragraph 32(a)(2)(iii)* and paragraph 1 are added.

■ i. *32(a)(3) Determination of annual percentage rate* and paragraphs 1, 2, 3, 4, and 5 are added.

■ ii. Under *32(b) Definitions:*

■ a. *Paragraph 32(b)(2), Paragraph 32(b)(2)(i),* and paragraph 1 are added.

■ b. *Paragraph 32(b)(2)(i)(B)* and paragraph 1 are added.

■ c. *Paragraph 32(b)(2)(i)(C)* and paragraph 1 are added.

■ d. *Paragraph 32(b)(2)(i)(D)* and paragraph 1 are added.

■ e. *Paragraph 32(b)(2)(i)(E)* and paragraph 1 are added.

■ f. *Paragraph 32(b)(2)(i)(F)* and paragraph 1 are added.

■ g. *Paragraph 32(b)(2)(ii)* and paragraph 1 are added.

■ h. *Paragraph 32(b)(2)(iii)* and paragraph 1 are added.

■ i. *Paragraph 32(b)(2)(iv)* and paragraph 1 are added.

■ j. *Paragraph 32(b)(2)(vii)* and paragraph 1 are added.

■ k. *Paragraph 32(b)(2)(viii)* and paragraphs 1 and 2 are added.

■ l. Under *Paragraph 32(b)(6),* as added elsewhere in this issue of the **Federal Register**, paragraphs 3 and 4 are added.

■ iii. Under *32(c) Disclosures:*

■ a. *32(c)(2) Annual percentage rate* and paragraph 1 are added.

■ b. Under *32(c)(3),* the heading is revised.

■ c. Under newly designated *32(c)(3),* paragraph 1 is revised.

■ d. *Paragraph 32(c)(3)(i)* and paragraph 1 are added.

■ e. Under *32(c)(4) Variable rate,* paragraph 1 is revised.

■ iv. Under *32(d) Limitations:*

■ a. Paragraph 1 is revised.

■ b. Under *32(d)(1)(i) Balloon payment,* paragraph 1 is revised and paragraphs 2 and 3 are added.

■ c. Under *32(d)(2) Negative Amortization,* paragraph 1 is revised.

■ d. *32(d)(6) Prepayment Penalties* and paragraph 1 are removed.

■ e. *32(d)(7) Prepayment Penalty Exception, Paragraph 32(d)(7)(iii)* and paragraphs 1, 2, and 3, and *Paragraph 32(d)(7)(iv)* and paragraphs 1 and 2 are removed.

■ f. Under *32(d)(8),* the heading is revised.

■ g. Under newly designated *32(d)(8), Paragraph 32(d)(8)(i)* and paragraph 1 are added.

■ h. Under *Paragraph 32(d)(8)(ii),* paragraph 1 is revised.

■ i. Under *Paragraph 32(d)(8)(iii),* paragraphs 1 and 2.ii are revised.

■ C. Under *Section 1026.34—Prohibited Acts or Practices for High-Cost Mortgages:*

■ i. Under *34(a) Prohibited Acts or Practices for High-Cost Mortgages:*

■ a. Under *34(a)(4) Repayment ability,* paragraphs 1 through 5 are revised.

■ b. Under *Paragraph 34(a)(4)(ii)(B),* paragraph 1 is revised and paragraph 2 is removed.

■ c. *Paragraph 34(a)(4)(ii)(C)* and paragraph 1 are removed.

■ d. Under *34(a)(4)(iii) Presumption of compliance,* paragraph 1 is revised.

■ e. Under *Paragraph 34(a)(4)(iii)(B),* paragraph 1 is revised.

■ f. *34(a)(5) Pre-loan counseling, 34(a)(5)(i) Certification of counseling required,* and paragraphs 1 through 5 are added.

■ g. *34(a)(5)(ii) Timing of counseling* and paragraphs 1 and 2 are added.

■ h. *34(a)(5)(iv) Content of certification* and paragraphs 1 and 2 are added.

■ i. *34(a)(5)(v) Counseling fees* and paragraph 1 are added.

■ j. *34(a)(5)(vi) Steering prohibited* and paragraphs 1 and 2 are added.

■ k. *34(a)(6) Recommended default* and paragraphs 1 and 2 are added.

■ l. *34(a)(8) Late Fees, 34(a)(8)(i) General,* and paragraph 1 are added.

■ m. *34(a)(8)(iii) Multiple late charges assessed on payment subsequently paid* and paragraph 1 are added.

■ n. *34(a)(8)(iv) Failure to make required payment* and paragraph 1 are added.

■ o. *34(a)(10) Financing of points and fees* and paragraphs 1 and 2 are added.

■ ii. Under *34(b) Prohibited Acts or Practices for Dwelling-Secured Loans; Open-End Credit,* the heading is revised.

■ iii. Under revised *34(b) Prohibited acts or practices for dwelling-secured loans; structuring loans to evade high-cost mortgage requirements,* paragraph 1 is revised and paragraph 2 is added.

■ D. Under *Section 1026.36—Prohibited Acts or Practices in Connection with Credit Secured by a Dwelling:*

■ i. *36(k) Negative amortization counseling* is added.

■ a. *36(k)(1)Counseling required* and paragraphs 1 through 4 are added.

■ b. *36(k)(3) Steering prohibited* and paragraph 1 are added.

The revisions and additions read as follows:

Supplement I to Part 1026—Official Interpretations

* * * * *

Subpart E—Special Rules for Certain Home Mortgage Transactions

§ 1026.31 General Rules

* * * * *

31(c)(1) Disclosures for high-cost mortgages.

1. *Pre-consummation or account opening waiting period.* A creditor must furnish § 1026.32 disclosures at least three business days prior to consummation for a closed-end, high-cost mortgage and at least three business days prior to account opening for an open-end, high-cost mortgage. Under § 1026.32, ''business day'' has the same meaning as the rescission rule in comment 2(a)(6)–2—all calendar days except Sundays and the Federal legal holidays listed in 5 U.S.C. 6103(a). However, while the disclosure rule under §§ 1026.15 and 1026.23 extends to midnight of the third business day, the rule under § 1026.32 does not. For example, under § 1026.32, if disclosures were provided on a Friday, consummation or account opening could occur any time on Tuesday, the third business day following receipt of

the disclosures. If the timing of the rescission rule were to be used, consummation or account opening could not occur until after midnight on Tuesday.

31(c)(1)(i) Change in terms.

* * * * *

2. *Premiums or other charges financed at consummation or account opening.* If the consumer finances the payment of premiums or other charges as permitted under § 1026.34(a)(10), and as a result the monthly payment differs from what was previously disclosed under § 1026.32, redisclosure is required and a new three-day waiting period applies.

31(c)(1)(ii) Telephone disclosures.

1. *Telephone disclosures.* Disclosures by telephone must be furnished at least three business days prior to consummation or account opening, as applicable, calculated in accordance with the timing rules under § 1026.31(c)(1).

31(c)(1)(iii) Consumer's waiver of waiting period before consummation or account opening.

* * * * *

31(h) Corrections and unintentional violations.

1. *Notice requirements.* Notice of a violation pursuant to § 1026.31(h)(1) or (2) should be in writing. The notice should make the consumer aware of the choices available under § 1026.31(h)(1)(iii) and (2)(iii). For notice to be adequate, the consumer should have at least 60 days in which to consider the available options and communicate a choice to the creditor or assignee.

2. *Reasonable time.* To claim the benefit of § 1026.31(h), a creditor or assignee must implement appropriate restitution and the consumer's elected adjustment within a reasonable time after the consumer provides notice of that election to the creditor or assignee. What length of time is reasonable will depend on what changes to a loan or credit plan's documentation, disclosure, or terms are necessary to effectuate the adjustment. In general, implementing appropriate restitution and completing an adjustment within 30 days of the consumer's providing notice of the election can be considered reasonable.

§ 1026.32 Requirements for High-Cost Mortgages

32(a) Coverage.

Paragraph 32(a)(1).

1. The term *high-cost mortgage* includes both a closed-end credit transaction and an open-end credit plan secured by the consumer's principal dwelling. For purposes of determining coverage under § 1026.32, an open-end consumer credit transaction is the account opening of an open-end credit plan. An advance of funds or a draw on the credit line under an open-end credit plan subsequent to account opening does not constitute an open-end ''transaction.''

Paragraph 32(a)(1)(i).

1. *Average prime offer rate. High-cost mortgages* include closed- and open-end consumer credit transactions secured by the consumer's principal dwelling with an annual percentage rate that exceeds the average prime offer rate for a comparable transaction as of the date the interest rate is set by the specified amount. The term ''average prime offer rate'' is defined in § 1026.35(a)(2).

2. *Comparable transaction.* Guidance for determining a comparable transaction is set forth in comments 35(a)(1)–1 and 35(a)(2)–2 and –3, which direct creditors to published tables of average prime offer rates for fixed- and variable-rate closed-end credit transactions. Creditors opening open-end credit plans must compare the annual percentage rate for the plan to the average prime offer rate for the most closely comparable closed-end transaction. To identify the most closely comparable closed-end transaction, the creditor should identify whether the credit plan is fixed- or variable-rate; if the plan is fixed-rate, the term of the plan to maturity; if the plan is variable-rate, the duration of any initial, fixed-rate period; and the date the interest rate for the plan is set. If a fixed-rate plan has no definite plan length, a creditor must use the average prime offer rate for a 30-year fixed-rate loan. If a variable-rate plan has an optional, fixed-rate feature, a creditor must use the rate table for variable-rate transactions. If a variable-rate plan has an initial, fixed-rate period that is not in whole years, a creditor must identify the most closely-comparable transaction by using the number of whole years closest to the actual fixed-rate period. For example, if a variable-rate plan has an initial fixed-rate period of 20 months, a creditor must use the average prime offer rate for a two-year adjustable-rate loan. If a variable-rate plan has no initial fixed-rate period, or if it has an initial fixed-rate period of less than one year, a creditor must use the average prime offer rate for a one-year adjustable-rate loan. Thus, for example, if the initial fixed-rate period is six months, a creditor must use the average prime offer rate for a one-year adjustable-rate loan.

3. *Rate set.* Comment 35(a)(1)–2 provides guidance for determining the average prime offer rate in effect on the date that the interest rate for the transaction is set.

Paragraph 32(a)(1)(i)(B).

1. *Loan amount less than $50,000.* The creditor must determine whether to apply the APR threshold in § 1026.32(a)(1)(i)(B) based on the loan amount, which is the face amount of the note.

Paragraph 32(a)(1)(ii).

1. *Annual adjustment of $1,000 amount.* The $1,000 figure in § 1026.32(a)(1)(ii)(B) is adjusted annually on January 1 by the annual percentage change in the CPI that was in effect on the preceding June 1. The Bureau will publish adjustments after the June figures become available each year.

2. *Historical adjustment of $400 amount.* Prior to January 10, 2014, a mortgage loan was covered by § 1026.32 if the total points and fees payable by the consumer at or before loan consummation exceeded the greater of $400 or 8 percent of the total loan amount. The $400 figure was adjusted annually on January 1 by the annual percentage change in the CPI that was in effect on the preceding June 1, as follows:

* * * * *

3. *Applicable threshold.* For purposes of § 1026.32(a)(1)(ii), a creditor must determine the applicable points and fees threshold based on the face amount of the note (or, in the case of an open-end credit plan, the credit limit for the plan when the account is opened). However, the creditor must apply the allowable points and fees percentage to the ''total loan amount,'' as defined in § 1026.32(b)(4). For closed-end credit transactions, the total loan amount may be different than the face amount of the note. The $20,000 amount in § 1026.32(a)(1)(ii)(A) and (B) is adjusted annually on January 1 by the annual percentage change in the CPI that was in effect on the preceding June 1.

Paragraph 32(a)(1)(iii).

1. *Maximum period and amount.* Section 1026.32(a)(1)(iii) provides that a closed-end credit transaction or an open-end credit plan is a high-cost mortgage if, under the terms of the loan contract or open-end credit agreement, a creditor can charge either a prepayment penalty more than 36 months after consummation or account opening, or total prepayment penalties that exceed 2 percent of any amount prepaid. Section 1026.32(a)(1)(iii) applies only for purposes of determining whether a transaction is subject to the high-cost mortgage requirements and restrictions in § 1026.32(c) and (d) and § 1026.34. However, if a transaction is subject to

those requirements and restrictions by operation of any provision of § 1026.32(a)(1), including by operation of § 1026.32(a)(1)(iii), then the transaction may not include a prepayment penalty. *See* § 1026.32(d)(6). As a result, § 1026.32(a)(1)(iii) effectively establishes a maximum period during which a prepayment penalty may be imposed, and a maximum prepayment penalty amount that may be imposed, on a closed-end credit transaction or open-end credit plan (other than such a mortgage as described in § 1026.32(a)(2)) secured by a consumer's principal dwelling. Closed-end credit transactions covered by § 1026.43 are subject to the additional prepayment penalty restrictions set forth in § 1026.43(g).

2. *Examples; open-end credit.* If the terms of an open-end credit agreement allow for a prepayment penalty that exceeds 2 percent of the initial credit limit for the plan, the agreement will be deemed to be a transaction with a prepayment penalty that exceeds 2 percent of the ''amount prepaid'' within the meaning of § 1026.32(a)(1)(iii). The following examples illustrate how to calculate whether the terms of an open-end credit agreement comply with the maximum prepayment penalty period and amounts described in § 1026.32(a)(1)(iii).

i. Assume that the terms of a home-equity line of credit with an initial credit limit of $10,000 require the consumer to pay a $500 flat fee if the consumer terminates the plan less than 36 months after account opening. The $500 fee constitutes a prepayment penalty under § 1026.32(b)(6)(ii), and the penalty is greater than 2 percent of the $10,000 initial credit limit, which is $200. Under § 1026.32(a)(1)(iii), the plan is a high-cost mortgage subject to the requirements and restrictions set forth in §§ 1026.32 and 1026.34.

ii. Assume that the terms of a home-equity line of credit with an initial credit limit of $10,000 and a ten-year term require the consumer to pay a $200 flat fee if the consumer terminates the plan prior to its normal expiration. The $200 prepayment penalty does not exceed 2 percent of the initial credit limit, but the terms of the agreement permit the creditor to charge the fee more than 36 months after account opening. Thus, under § 1026.32(a)(1)(iii), the plan is a high-cost mortgage subject to the requirements and restrictions set forth in §§ 1026.32 and 1026.34.

iii. Assume that, under the terms of a home-equity line of credit with an initial credit limit of $150,000, the creditor may charge the consumer any closing costs waived by the creditor if the consumer terminates the plan less than 36 months after account opening. Assume also that the creditor waived closing costs of $1,000. Bona fide third-party charges comprised $800 of the $1,000 in waived closing costs, and origination charges retained by the creditor or its affiliate comprised the remaining $200. Under § 1026.32(b)(6)(ii), the $800 in bona fide third-party charges is not a prepayment penalty, while the $200 for the creditor's own originations costs is a prepayment penalty. The total prepayment penalty of $200 is less than 2 percent of the initial $150,000 credit limit, and the penalty does not apply if the consumer terminates the plan more than 36 months after account opening. Thus, the plan is not a high-cost mortgage under § 1026.32(a)(1)(iii).

32(a)(2) Exemptions.

* * * * *

Paragraph 32(a)(2)(ii).

1. *Construction-permanent loans.* Section 1026.32 does not apply to a transaction to finance the initial construction of a dwelling. This exemption applies to a construction-only loan as well as to the construction phase of a construction-to-permanent loan. Section 1026.32 may apply, however, to permanent financing that replaces a construction loan, whether the permanent financing is extended by the same or a different creditor. When a construction loan may be permanently financed by the same creditor, § 1026.17(c)(6)(ii) permits the creditor to give either one combined disclosure for both the construction financing and the permanent financing, or a separate set of disclosures for each of the two phases as though they were two separate transactions. *See also* comment 17(c)(6)–2. Section 1026.17(c)(6)(ii) addresses only how a creditor may elect to disclose a construction to permanent transaction. Which disclosure option a creditor elects under § 1026.17(c)(6)(ii) does not affect the determination of whether the permanent phase of the transaction is subject to § 1026.32. When the creditor discloses the two phases as separate transactions, the annual percentage rate for the permanent phase must be compared to the average prime offer rate for a transaction that is comparable to the permanent financing to determine coverage under § 1026.32. Likewise, a single amount of points and fees, also reflecting the appropriate charges from the permanent phase, must be calculated and compared with the total loan amount to determine coverage under § 1026.32. When the creditor discloses the two phases as a single transaction, a single annual percentage rate, reflecting the appropriate charges from both phases, must be calculated for the transaction in accordance with § 1026.32(a)(3) and appendix D to part 1026. This annual percentage rate must be compared to the average prime offer rate for a transaction that is comparable to the permanent financing to determine coverage under § 1026.32. Likewise, a single amount of points and fees, also reflecting the appropriate charges from both phases of the transaction, must be calculated and compared with the total loan amount to determine coverage under § 1026.32. If the transaction is determined to be a high-cost mortgage, only the permanent phase is subject to the requirements of §§ 1026.32 and 1026.34.

Paragraph 32(a)(2)(iii).

1. *Housing Finance Agency.* For purposes of § 1026.32(a)(2)(iii), a Housing Finance Agency means a housing finance agency as defined in 24 CFR 266.5.

32(a)(3) Determination of annual percentage rate.

1. *In general.* The guidance set forth in the commentary to § 1026.17(c)(1) and in § 1026.40 addresses calculation of the annual percentage rate disclosures for closed-end credit transactions and open-end credit plans, respectively. Section 1026.32(a)(3) requires a different calculation of the annual percentage rate solely to determine coverage under § 1026.32(a)(1)(i).

2. *Open-end credit.* The annual percentage rate for an open-end credit plan must be determined in accordance with § 1026.32(a)(3), regardless of whether there is an advance of funds at account opening. Section 1026.32(a)(3) does not require the calculation of the annual percentage rate for any extensions of credit subsequent to account opening. Any draw on the credit line subsequent to account opening is not treated as a separate transaction for purposes of determining annual percentage rate threshold coverage.

3. *Rates that vary; index rate plus maximum margin.* i. Section 1026.32(a)(3)(ii) applies in the case of a closed- or open-end credit transaction when the interest rate for the transaction varies solely in accordance with an index. For purposes of § 1026.32(a)(3)(ii), a transaction's interest rate varies in accordance with an index even if the transaction has an initial rate that is not determined by the index used to make later interest rate adjustments provided that, following the first rate adjustment, the interest rate

for the transaction varies solely in accordance with an index.

ii. In general, for transactions subject to § 1026.32(a)(3)(ii), the annual percentage rate is determined by adding the index rate in effect on the date that the interest rate for the transaction is set to the maximum margin for the transaction, as set forth in the agreement for the loan or plan. In some cases, a transaction subject to § 1026.32(a)(3)(ii) may have an initial rate that is a premium rate and is higher than the index rate plus the maximum margin as of the date the interest rate for the transaction is set. In such cases, the annual percentage rate is determined based on the initial ''premium'' rate.

iii. The following examples illustrate the rule:

A. Assume that the terms of a closed-end, adjustable-rate mortgage loan provide for a fixed, initial interest rate of 2 percent for two years following consummation, after which the interest rate will adjust annually in accordance with an index plus a 2 percent margin. Also assume that the applicable index is 3 percent as of the date the interest rate for the transaction is set, and a lifetime interest rate cap of 15 percent applies to the transaction. Pursuant to § 1026.32(a)(3)(ii), for purposes of determining the annual percentage rate for § 1026.32(a)(1)(i), the interest rate for the transaction is 5 percent (3 percent index rate plus 2 percent margin).

B. Assume the same transaction terms set forth in paragraph 3.iii.A, except that an initial interest rate of 6 percent applies to the transaction. Pursuant to § 1026.32(a)(3)(ii), for purposes of determining the annual percentage rate for § 1026.32(a)(1)(i), the interest rate for the transaction is 6 percent.

C. Assume that the terms of an open-end credit agreement with a five-year draw period and a five-year repayment period provide for a fixed, initial interest rate of 2 percent for the first year of the repayment period, after which the interest rate will adjust annually pursuant to a publicly-available index outside the creditor's control, in accordance with the limitations applicable to open-end credit plans in § 1026.40(f). Also assume that, pursuant to the terms of the open-end credit agreement, a margin of 2 percent applies because the consumer is employed by the creditor, but that the margin will increase to 4 percent if the consumer's employment with the creditor ends. Finally, assume that the applicable index rate is 3.5 percent as of the date the interest rate for the transaction is set, and a lifetime interest rate cap of 15 percent applies to the transaction. Pursuant to § 1026.32(a)(3)(ii), for purposes of determining the annual percentage rate for § 1026.32(a)(1)(i), the interest rate for the transaction is 7.5 percent (3.5 percent index rate plus 4 percent maximum margin).

D. Assume the same transaction terms set forth in paragraph 3.iii.C, except that an initial interest rate of 8 percent applies to the transaction. Pursuant to § 1026.32(a)(3)(ii), for purposes of determining the annual percentage rate for § 1026.32(a)(1)(i), the interest rate for the transaction is 8 percent.

4. *Rates that vary other than in accordance with an index.* Section 1026.32(a)(3)(iii) applies when the interest rate applicable to a closed- or open-end transaction may or will vary, except as described in § 1026.32(a)(3)(ii). Section 1026.32(a)(3)(iii) thus applies where multiple fixed rates apply to a transaction, such as in a step-rate mortgage. For example, assume the following interest rates will apply to a transaction: 3 percent for the first six months, 4 percent for the next 10 years, and 5 percent for the remaining loan term. In this example, § 1026.32(a)(3)(iii) would be used to determine the interest rate, and 5 percent would be the maximum interest rate applicable to the transaction used to determine the annual percentage rate for purposes of § 1026.32(a)(1)(i). Section 1026.32(a)(3)(iii) also applies to any other adjustable-rate loan where the interest rate may vary but according to a formula other than the sum of an index and a margin.

5. *Fixed-rate and -term payment options.* If an open-end credit plan has only a fixed rate during the draw period, a creditor must use the interest rate applicable to that feature to determine the annual percentage rate, as required by § 1026.32(a)(3)(i). However, if an open-end credit plan has a variable rate, but also offers a fixed-rate and -term payment option during the draw period, § 1026.32(a)(3) requires a creditor to use the terms applicable to the variable-rate feature for determining the annual percentage rate, as described in § 1026.32(a)(3)(ii).

32(b) Definitions.

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Paragraph 32(b)(2)(i).

1. *Finance charge.* The points and fees calculation under § 1026.32(b)(2) generally does not include items that are included in the finance charge but that are not known until after account opening, such as minimum monthly finance charges or charges based on account activity or inactivity. Transaction fees also generally are not included in the points and fees calculation, except as provided in § 1026.32(b)(2)(vi). See comments 32(b)(1)–1 and 32(b)(1)(i)–1 and –2 for additional guidance concerning the calculation of points and fees.

Paragraph 32(b)(2)(i)(B).

1. See comment 32(b)(1)(i)(B)–1 for further guidance concerning the exclusion of mortgage insurance premiums payable in connection with any Federal or State agency program.

Paragraph 32(b)(2)(i)(C).

1. See comment 32(b)(1)(i)(C)–1 and –2 for further guidance concerning the exclusion of mortgage insurance premiums payable for any guaranty or insurance that protects the creditor against the consumer's default or other credit loss and that is not in connection with any Federal or State agency program.

Paragraph 32(b)(2)(i)(D).

1. For purposes of § 1026.32(b)(2)(i)(D), the term *loan originator* means a loan originator as that term is defined in § 1026.36(a)(1), without regard to § 1026.36(a)(2). See comments 32(b)(1)(i)(D)–1, –3, and –4 for further guidance concerning the exclusion of bona fide third-party charges from points and fees.

Paragraph 32(b)(2)(i)(E).

1. See comments 32(b)(1)(i)(E)–1 through –3 for further guidance concerning the exclusion of up to two bona fide discount points from points and fees.

Paragraph 32(b)(2)(i)(F).

1. See comments 32(b)(1)(i)(F)–1 and –2 for further guidance concerning the exclusion of up to one bona fide discount point from points and fees.

Paragraph 32(b)(2)(ii).

1. For purposes of § 1026.32(b)(2)(ii), the term *loan originator* means a loan originator as that term is defined in § 1026.36(a)(1), without regard to § 1026.36(a)(2). See the commentary to § 1026.32(b)(1)(ii) for additional guidance concerning the inclusion of loan originator compensation in points and fees.

Paragraph 32(b)(2)(iii).

1. *Other charges.* See comment 32(b)(1)(iii)–1 for further guidance concerning the inclusion of items listed in § 1026.4(c)(7) in points and fees.

Paragraph 32(b)(2)(iv).

1. *Credit insurance and debt cancellation or suspension coverage.* See comments 32(b)(1)(iv)–1 through –3 for further guidance concerning the inclusion of premiums for credit insurance and debt cancellation or suspension coverage in points and fees.

Paragraph 32(b)(2)(vii).

1. *Participation fees.* Fees charged for participation in a credit plan must be

included in the points and fees calculation for purposes of § 1026.32 if payable at or before account opening. These fees include annual fees or other periodic fees that must be paid as a condition of access to the plan itself. See commentary to § 1026.4(c)(4) for a description of these fees.

Paragraph 32(b)(2)(viii).

1. *Transaction fees to draw down the credit line.* Section 1026.32(b)(2)(viii) requires creditors in open-end credit plans to include in points and fees any transaction fee, including any per-transaction fee, that will be charged for a draw on the credit line. Section 1026.32(b)(2)(viii) requires the creditor to assume that the consumer will make at least one draw during the term of the credit plan. Thus, if the terms of the open-end credit plan permit the creditor to charge a $10 transaction fee each time the consumer draws on the credit line, § 1026.32(b)(2)(viii) requires the creditor to include one $10 charge in the points and fees calculation.

2. *Fixed-rate loan option.* If the terms of an open-end credit plan permit a consumer to draw on the credit line using either a variable-rate feature or a fixed-rate feature, § 1026.32(b)(2)(viii) requires the creditor to use the terms applicable to the variable-rate feature for determining the transaction fee that must be included in the points and fees calculation.

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32(b)(6) Prepayment penalty.

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3. *Examples of prepayment penalties; open-end credit.* For purposes of § 1026.32(b)(6)(ii), the term *prepayment penalty* includes a charge, including a waived closing cost, imposed by the creditor if the consumer terminates the open-end credit plan prior to the end of its term. This includes a charge imposed if the consumer terminates the plan outright or, for example, if the consumer terminates the plan in connection with obtaining a new loan or plan with the current holder of the existing plan, a servicer acting on behalf of the current holder, or an affiliate of either. However, the term *prepayment penalty* does not include a waived bona fide third-party charge imposed by the creditor if the consumer terminates the open-end credit plan during the first 36 months after account opening.

4. *Fees that are not prepayment penalties; open-end credit.* For purposes of § 1026.32(b)(6)(ii), fees that are not prepayment penalties include, for example:

i. Fees imposed for preparing and providing documents when an open-end credit plan is terminated, if such fees are imposed whether or not the consumer terminates the plan prior to the end of its term. Examples include a payoff statement, a reconveyance document, or another document releasing the creditor's security interest in the dwelling that secures the line of credit.

ii. Loan guarantee fees.

iii. Any fee that the creditor may impose in lieu of termination and acceleration under comment 40(f)(2)–2.

32(c) Disclosures.

* * * * *

32(c)(2) Annual percentage rate.

1. *Disclosing annual percentage rate for open-end high-cost mortgages.* In disclosing the annual percentage rate for an open-end, high-cost mortgage under § 1026.32(c)(2), creditors must comply with § 1026.6(a)(1). If a fixed-rate, discounted introductory or initial interest rate is offered on the transaction, § 1026.32(c)(2) requires a creditor to disclose the annual percentage rate of the fixed-rate, discounted introductory or initial interest rate feature, and the rate that would apply when the feature expires.

32(c)(3) Regular payment; minimum periodic payment example; balloon payment.

1. *Balloon payment.* Except as provided in § 1026.32(d)(1)(ii) and (iii), a mortgage transaction subject to this section may not include a payment schedule that results in a balloon payment.

Paragraph 32(c)(3)(i).

1. *General.* The regular payment is the amount due from the consumer at regular intervals, such as monthly, bimonthly, quarterly, or annually. There must be at least two payments, and the payments must be in an amount and at such intervals that they fully amortize the amount owed. In disclosing the regular payment, creditors may rely on the rules set forth in § 1026.18(g); however, the amounts for voluntary items, such as credit life insurance, may be included in the regular payment disclosure only if the consumer has previously agreed to the amounts.

i. If the loan has more than one payment level, the regular payment for each level must be disclosed. For example:

A. In a 30-year graduated payment mortgage where there will be payments of $300 for the first 120 months, $400 for the next 120 months, and $500 for the last 120 months, each payment amount must be disclosed, along with the length of time that the payment will be in effect.

B. If interest and principal are paid at different times, the regular amount for each must be disclosed.

C. In discounted or premium variable-rate transactions where the creditor sets the initial interest rate and later rate adjustments are determined by an index or formula, the creditor must disclose both the initial payment based on the discount or premium and the payment that will be in effect thereafter. Additional explanatory material which does not detract from the required disclosures may accompany the disclosed amounts. For example, if a monthly payment is $250 for the first six months and then increases based on an index and margin, the creditor could use language such as the following: ''Your regular monthly payment will be $250 for six months. After six months your regular monthly payment will be based on an index and margin, which currently would make your payment $350. Your actual payment at that time may be higher or lower.''

32(c)(4) Variable-rate.

1. *Calculating ''worst-case'' payment example.* For a closed-end credit transaction, creditors may rely on instructions in § 1026.19(b)(2)(viii)(B) for calculating the maximum possible increases in rates in the shortest possible timeframe, based on the face amount of the note (not the hypothetical loan amount of $10,000 required by § 1026.19(b)(2)(viii)(B)). The creditor must provide a maximum payment for each payment level, where a payment schedule provides for more than one payment level and more than one maximum payment amount is possible. For an open-end credit plan, the maximum monthly payment must be based on the following assumptions:

i. The consumer borrows the full credit line at account opening with no additional extensions of credit.

ii. The consumer makes only minimum periodic payments during the draw period and any repayment period.

iii. If the annual percentage rate may increase during the plan, the maximum annual percentage rate that is included in the contract, as required by § 1026.30, applies to the plan at account opening.

* * * * *

32(d) Limitations.

1. *Additional prohibitions applicable under other sections.* Section 1026.34 sets forth certain prohibitions in connection with high-cost mortgages, in addition to the limitations in § 1026.32(d). Further, § 1026.35(b) prohibits certain practices in connection with closed-end transactions that meet the coverage test in § 1026.35(a). Because the coverage test in § 1026.35(a) is generally broader than the coverage test in § 1026.32(a), most closed-end high-cost mortgages are also subject to

the prohibitions set forth in § 1026.35(b) (such as escrows), in addition to the limitations in § 1026.32(d).

* * * * *

32(d)(1)(i) Balloon payment.

1. *Regular periodic payments.* The repayment schedule for a high-cost mortgage must fully amortize the outstanding principal balance through ''regular periodic payments.'' A payment is a ''regular periodic payment'' if it is not more than two times the amount of other payments. For purposes of open-end credit plans, the term ''regular periodic payment'' or ''periodic payment'' means the required minimum periodic payment.

2. *Repayment period.* If the terms of an open-end credit plan provide for a repayment period during which no further draws may be taken, the limitations in § 1026.32(d)(1)(i) apply to regular periodic payments required by the credit plan during the draw period, but do not apply to any adjustment in the regular periodic payment that results from the transition from the credit plan's draw period to its repayment period. Further, the limitation on balloon payments in § 1026.32(d)(1)(i) does not preclude increases in regular periodic payments that result solely from the initial draw or additional draws on the credit line during the draw period.

3. *No repayment period.* If the terms of an open-end credit plan do not provide for a repayment period, the repayment schedule must fully amortize any outstanding principal balance in the draw period through regular periodic payments. However, the limitation on balloon payments in § 1026.32(d)(1)(i) does not preclude increases in regular periodic payments that result solely from the initial draw or additional draws on the credit line during the draw period.

32(d)(2) Negative amortization.

1. *Negative amortization.* The prohibition against negative amortization in a high-cost mortgage does not preclude reasonable increases in the principal balance that result from events permitted by the legal obligation unrelated to the payment schedule. For example, when a consumer fails to obtain property insurance and the creditor purchases insurance, the creditor may add a reasonable premium to the consumer's principal balance, to the extent permitted by applicable law and the consumer's legal obligation.

* * * * *

32(d)(8) Acceleration of debt.

Paragraph 32(d)(8)(i).

1. *Fraud or material misrepresentation.* A creditor may terminate a loan or open-end credit agreement and accelerate the balance if there has been fraud or material misrepresentation by the consumer in connection with the loan or open-end credit agreement. What constitutes fraud or misrepresentation is determined by applicable State law and may include acts of omission as well as overt acts, as long as any necessary intent on the part of the consumer exists.

Paragraph 32(d)(8)(ii).

1. *Failure to meet repayment terms.* A creditor may terminate a loan or open-end credit agreement and accelerate the balance when the consumer fails to meet the repayment terms resulting in a default in payment under the agreement; a creditor may do so, however, only if the consumer actually fails to make payments resulting in a default in the agreement. For example, a creditor may not terminate and accelerate if the consumer, in error, sends a payment to the wrong location, such as a branch rather than the main office of the creditor. If a consumer files for or is placed in bankruptcy, the creditor may terminate and accelerate under § 1026.32(d)(8)(i) if the consumer fails to meet the repayment terms resulting in a default of the agreement. Section 1026.32(d)(8)(i) does not override any State or other law that requires a creditor to notify a consumer of a right to cure, or otherwise places a duty on the creditor before it can terminate a loan or open-end credit agreement and accelerate the balance.

Paragraph 32(d)(8)(iii).

1. *Impairment of security.* A creditor may terminate a loan or open-end credit agreement and accelerate the balance if the consumer's action or inaction adversely affects the creditor's security for the loan, or any right of the creditor in that security. Action or inaction by third parties does not, in itself, permit the creditor to terminate and accelerate.

2. * * *

ii. By contrast, the filing of a judgment against the consumer would be cause for termination and acceleration only if the amount of the judgment and collateral subject to the judgment is such that the creditor's security is adversely and materially affected in violation of the loan or open-end credit agreement. If the consumer commits waste or otherwise destructively uses or fails to maintain the property, including demolishing or removing structures from the property, such that the action adversely affects the security in a material way, the loan or open-end credit agreement may be terminated and the balance accelerated. Illegal use of the property by the consumer would permit termination and acceleration if it subjects the property to seizure. If one of two consumers obligated on a loan dies, the creditor may terminate the loan and accelerate the balance if the security is adversely affected. If the consumer moves out of the dwelling that secures the loan and that action adversely affects the security in a material way, the creditor may terminate a loan or open-end credit agreement and accelerate the balance.

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§ 1026.34 Prohibited Acts or Practices in Connection with High-Cost Mortgages

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34(a)(4) Repayment ability for high-cost mortgages.

1. *Application of repayment ability rule.* The § 1026.34(a)(4) prohibition against making loans without regard to consumers' repayment ability applies to open-end, high-cost mortgages. The § 1026.43 repayment ability provisions apply to closed-end, high-cost mortgages. Accordingly, in connection with a closed-end, high-cost mortgage, § 1026.34(a)(4) requires a creditor to comply with the repayment ability requirements set forth in § 1026.43.

2. *General prohibition.* Section 1026.34(a)(4) prohibits a creditor from extending credit under a high-cost, open-end credit plan based on the value of the consumer's collateral without regard to the consumer's repayment ability as of account opening, including the consumer's current and reasonably expected income, employment, assets other than the collateral, current obligations, and property tax and insurance obligations. A creditor may base its determination of repayment ability on current or reasonably expected income from employment or other sources, on assets other than the collateral, or both.

3. *Other dwelling-secured obligations.* For purposes of § 1026.34(a)(4), current obligations include another credit obligation of which the creditor has knowledge undertaken prior to or at account opening and secured by the same dwelling that secures the high-cost mortgage transaction.

4. *Discounted introductory rates and non-amortizing payments.* A credit agreement may determine a consumer's initial payments using a temporarily discounted interest rate or permit the consumer to make initial payments that are non-amortizing. In such cases the creditor may determine repayment ability using the assumptions provided in § 1026.34(a)(4)(iv).

5. *Repayment ability as of account opening.* Section 1026.34(a)(4) prohibits a creditor from disregarding repayment ability based on the facts and

circumstances known to the creditor as of account opening. In general, a creditor does not violate this provision if a consumer defaults because of a significant reduction in income (for example, a job loss) or a significant obligation (for example, an obligation arising from a major medical expense) that occurs after account opening. However, if a creditor has knowledge as of account opening of reductions in income (for example, if a consumer's written application states that the consumer plans to retire within twelve months without obtaining new employment, or states that the consumer will transition from full-time to part-time employment), the creditor must consider that information.

* * * * *

34(a)(4)(ii) Verification of Repayment Ability.

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Paragraph 34(a)(4)(ii)(B).

1. *In general.* A credit report may be used to verify current obligations. A credit report, however, might not reflect an obligation that a consumer has listed on an application. The creditor is responsible for considering such an obligation, but the creditor is not required to independently verify the obligation. Similarly, a creditor is responsible for considering certain obligations undertaken just before or at account opening and secured by the same dwelling that secures the transaction (for example, a ''piggy back'' loan), of which the creditor knows, even if not reflected on a credit report. *See* comment 34(a)(4)–3.

34(a)(4)(iii) Presumption of compliance.

1. *In general.* A creditor is presumed to have complied with § 1026.34(a)(4) if the creditor follows the three underwriting procedures specified in paragraph 34(a)(4)(iii) for verifying repayment ability, determining the payment obligation, and measuring the relationship of obligations to income. The procedures for verifying repayment ability are required under § 1026.34(a)(4)(ii); the other procedures are not required but, if followed along with the required procedures, create a presumption that the creditor has complied with § 1026.34(a)(4). The consumer may rebut the presumption with evidence that the creditor nonetheless disregarded repayment ability despite following these procedures. For example, evidence of a very high debt-to-income ratio and a very limited residual income could be sufficient to rebut the presumption, depending on all of the facts and circumstances. If a creditor fails to follow one of the non-required procedures set forth in § 1026.34(a)(4)(iii), then the creditor's compliance is determined based on all of the facts and circumstances without there being a presumption of either compliance or violation.

Paragraph 34(a)(4)(iii)(B).

1. *Determination of payment schedule.* To retain a presumption of compliance under § 1026.34(a)(4)(iii), a creditor must determine the consumer's ability to pay the principal and interest obligation based on the maximum scheduled payment. In general, a creditor should determine a payment schedule for purposes of § 1026.34(a)(4)(iii)(B) based on the guidance in the commentary to § 1026.32(c)(3).

* * * * *

34(a)(5) Pre-loan counseling.

34(a)(5)(i) Certification of counseling required.

1. *HUD-approved counselor.* For purposes of § 1026.34(a)(5), counselors approved by the Secretary of the U.S. Department of Housing and Urban Development are homeownership counselors certified pursuant to section 106(e) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x(e)), or as otherwise determined by the Secretary.

2. *State housing finance authority.* For purposes of § 1026.34(a)(5), a ''State housing finance authority'' has the same meaning as ''State housing finance agency'' provided in 24 CFR 214.3.

3. *Processing applications.* Prior to receiving certification of counseling, a creditor may not extend a high-cost mortgage, but may engage in other activities, such as processing an application that will result in the extension of a high-cost mortgage (by, for example, ordering an appraisal or title search).

4. *Form of certification.* The written certification of counseling required by § 1026.34(a)(5)(i) may be received by mail, email, facsimile, or any other method, so long as the certification is in a retainable form.

5. *Purpose of certification.* Certification of counseling indicates that a consumer has received counseling as required by § 1026.34(a)(5), but it does not indicate that a counselor has made a judgment or determination as to the appropriateness of the transaction for the consumer.

34(a)(5)(ii) Timing of counseling.

1. *Disclosures for open-end credit plans.* Section 1026.34(a)(5)(ii) permits receipt of either the good faith estimate required by section 5(c) of RESPA or the disclosures required under § 1026.40 to allow counseling to occur. Pursuant to 12 CFR 1024.7(h), the disclosures required by § 1026.40 can be provided in lieu of a good faith estimate for open-end credit plans.

2. *Initial disclosure.* Counseling may occur after receipt of either an initial good faith estimate required by section 5(c) of RESPA or a disclosure form pursuant to § 1026.40, regardless of whether a revised good faith estimate or revised disclosure form pursuant to § 1026.40 is subsequently provided to the consumer.

34(a)(5)(iv) Content of certification.

1. *Statement of counseling on advisability.* A statement that a consumer has received counseling on the advisability of the high-cost mortgage means that the consumer has received counseling about key terms of the mortgage transaction, as set out in either the good faith estimate required by section 5(c) of RESPA or the disclosures provided to the consumer pursuant to § 1026.40; the consumer's budget, including the consumer's income, assets, financial obligations, and expenses; and the affordability of the mortgage transaction for the consumer. Examples of such terms of the mortgage transaction include the initial interest rate, the initial monthly payment, whether the payment may increase, how the minimum periodic payment will be determined, and fees imposed by the creditor, as may be reflected in the applicable disclosure. A statement that a consumer has received counseling on the advisability of the high-cost mortgage does not require the counselor to have made a judgment or determination as to the appropriateness of the mortgage transaction for the consumer.

2. *Statement of verification.* A statement that a counselor has verified that the consumer has received the disclosures required by either § 1026.32(c) or by RESPA for the high-cost mortgage means that a counselor has confirmed, orally, in writing, or by some other means, receipt of such disclosures with the consumer.

34(a)(5)(v) Counseling fees.

1. *Financing.* Section 1026.34(a)(5)(v) does not prohibit a creditor from financing the counseling fee as part of the transaction for a high-cost mortgage, if the fee is a bona fide third- party charge as provided by § 1026.32(b)(5)(i).

34(a)(5)(vi) Steering prohibited.

1. An example of an action that constitutes steering would be when a creditor repeatedly highlights or otherwise distinguishes the same counselor in the notices the creditor provides to consumers pursuant to § 1026.34(a)(5)(vii).

2. Section 1026.34(a)(5)(vi) does not prohibit a creditor from providing a consumer with objective information related to counselors or counseling organizations in response to a consumer's inquiry. An example of an action that would not constitute steering would be when a consumer asks the creditor for information about the fees charged by a counselor, and the creditor responds by providing the consumer information about fees charged by the counselor to other consumers that previously obtained counseling pursuant to § 1026.34(a)(5).

34(a)(6) Recommended default.

1. *Facts and circumstances.* Whether a creditor or mortgage broker ''recommends or encourages'' default for purposes of § 1026.34(a)(6) depends on all of the relevant facts and circumstances.

2. *Examples.* i. A creditor or mortgage broker ''recommends or encourages'' default when the creditor or mortgage broker advises the consumer to stop making payments on an existing loan in a manner that is likely to cause the consumer to default on the existing loan.

ii. When delay of consummation of a high-cost mortgage occurs for reasons outside the control of a creditor or mortgage broker, that creditor or mortgage broker does not ''recommend or encourage'' default because the creditor or mortgage broker informed a consumer that:

A. The consumer's high-cost mortgage is scheduled to be consummated prior to the due date for the next payment due on the consumer's existing loan, which is intended to be paid by the proceeds of the new high-cost mortgage; and

B. Any delay of consummation of the new high-cost mortgage beyond the payment due date of the existing loan will not relieve the consumer of the obligation to make timely payment on that loan.

34(a)(8) Late fees.

34(a)(8)(i) General.

1. For purposes of § 1026.34(a)(8), in connection with an open-end credit plan, the amount of the payment past due is the required minimum periodic payment as provided under the terms of the open-end credit agreement.

34(a)(8)(iii) Multiple late charges assessed on payment subsequently paid.

1. Section 1026.34(a)(8)(iii) prohibits the pyramiding of late fees or charges in connection with a high-cost mortgage payment. For example, assume that a consumer's regular periodic payment of $500 is due on the 1st of each month. On August 25, the consumer makes a $500 payment which was due on August 1, and as a result, a $10 late charge is assessed. On September 1, the consumer makes another $500 payment for the regular periodic payment due on September 1, but does not pay the $10 late charge assessed on the August payment. Under § 1026.34(h)(2), it is impermissible to allocate $10 of the consumer's September 1 payment to cover the late charge, such that the September payment becomes delinquent. In short, because the $500 payment made on September 1 is a full payment for the applicable period and is paid by its due date or within any applicable grace period, no late charge may be imposed on the account in connection with the September payment.

34(a)(8)(iv) Failure to make required payment.

1. Under § 1026.34(a)(8)(iv), if a consumer fails to make one or more required payments and then resumes making payments but fails to bring the account current, it is permissible, if permitted by the terms of the loan contract or open-end credit agreement, to apply the consumer's payments first to the past due payment(s) and to impose a late charge on each subsequent required payment until the account is brought current. To illustrate: Assume that a consumer's regular periodic payment of $500 is due on the 1st of each month, or before the expiration of a 15-day grace period. Also assume that the consumer fails to make a timely installment payment by August 1 (or within the applicable grace period), and a $10 late charge therefore is imposed. The consumer resumes making monthly payments on September 1. Under § 1026.34(a)(8)(iv), if permitted by the terms of the loan contract, the creditor may apply the $500 payment made on September 1 to satisfy the missed $500 payment that was due on August 1. If the consumer makes no other payment prior to the end of the grace period for the payment that was due on September 1, the creditor may also impose a $10 late fee for the payment that was due on September 1.

34(a)(10) Financing of points and fees.

1. *Points and fees.* For purposes of § 1026.34(a)(10), ''points and fees'' means those items that are required to be included in the calculation of points and fees under § 1026.32(b)(1) and (2). Thus, for example, in connection with the extension of credit under a high-cost mortgage, a creditor may finance a fee charged by a third-party counselor in connection with the consumer's receipt of pre-loan counseling under § 1026.34(a)(5), because, pursuant to § 1026.32(b)(1)(i)(D) and (b)(2)(i)(D), such a fee is excluded from the calculation of points and fees as a bona fide third-party charge.

2. *Examples of financing points and fees.* For purposes of § 1026.34(a)(10), points and fees are financed if, for example, they are added to the loan balance or financed through a separate note, if the note is payable to the creditor or to an affiliate of the creditor. In the case of an open-end credit plan, a creditor also finances points and fees if the creditor advances funds from the credit line to cover the fees.

34(b) Prohibited acts or practices for dwelling-secured loans; structuring loans to evade high-cost mortgage requirements.

1. *Examples.* i. A creditor structures a transaction in violation of § 1026.34(b) if, for example, the creditor structures a loan that would otherwise be a high-cost mortgage as two or more loans, whether made consecutively or at the same time, for example, to divide the loan fees to avoid the points and fees threshold for high-cost mortgages in § 1026.32(a)(1)(ii).

ii. A creditor does not structure a transaction in violation of § 1026.34(b) when a loan to finance the initial construction of a dwelling may be permanently financed by the same creditor, such as a ''construction-to-permanent'' loan, and the construction phase and the permanent phase are treated as separate transactions. Section 1026.17(c)(6)(ii) permits the creditor to give either one combined disclosure for both the construction financing and the permanent financing, or a separate set of disclosures for each of the two phases as though they were two separate transactions. *See also* comment 17(c)(6)–2.

2. *Amount of credit extended.* Where a loan is documented as open-end credit but the features and terms or other circumstances demonstrate that it does not meet the definition of open-end credit, the loan is subject to the rules for closed-end credit. Thus, in determining the ''total loan amount'' for purposes of applying the triggers under § 1026.32, the amount of credit that would have been extended if the loan had been documented as a closed-end loan is a factual determination to be made in each case. Factors to be considered include the amount of money the consumer originally requested, the amount of the first advance or the highest outstanding balance, or the amount of the credit line. The full amount of the credit line is considered only to the extent that it is reasonable to expect that the consumer might use the full amount of credit.

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§ 1026.36 Prohibited Acts or Practices in Connection with Credit Secured by a Dwelling

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36(k) Negative amortization counseling.

36(k)(1) Counseling required.

1. *HUD-certified or -approved counselor or counseling organization.* For purposes of § 1026.36(k), organizations or counselors certified or approved by the U.S. Department of Housing and Urban Development (HUD) to provide the homeownership counseling required by § 1026.36(k) include counselors and counseling organizations that are certified or approved pursuant to section 106(e) of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701x(e)) or 24 CFR part 214, unless HUD determines otherwise.

2. *Homeownership counseling.* The counseling required under § 1026.36(k) must include information regarding the risks and consequences of negative amortization.

3. *Documentation.* Examples of documentation that demonstrate a consumer has received the counseling required under § 1026.36(k) include a certificate of counseling, letter, or email from a HUD-certified or -approved counselor or counseling organization indicating that the consumer has received homeownership counseling.

4. *Processing applications.* Prior to receiving documentation that a consumer has received the counseling required under § 1026.36(k), a creditor may not extend credit to a first-time borrower in connection with a closed-end transaction secured by a dwelling that may result in negative amortization, but may engage in other activities, such as processing an application for such a transaction (by, for example, ordering an appraisal or title search).

36(k)(3) Steering prohibited.

1. See comments 34(a)(5)(vi)–1 and –2 for guidance concerning steering.

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Dated: January 10, 2013.

Richard Cordray,

Director, Bureau of Consumer Financial Protection.

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Part III

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Part 218

Takes of Marine Mammals Incidental to Specified Activities; U.S. Navy Training and Testing Activities in the Hawaii-Southern California Training and Testing Study Area; Proposed Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 218

[Docket No. 130107014–3024–01]

RIN 0648–BC52

Takes of Marine Mammals Incidental to Specified Activities; U.S. Navy Training and Testing Activities in the Hawaii-Southern California Training and Testing Study Area

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments and information.

SUMMARY: NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to the training and testing activities conducted in the Hawaii-Southern California Training and Testing (HSTT) study area from January 2014 through January 2019. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue regulations and subsequent Letters of Authorization (LOAs) to the Navy to incidentally harass marine mammals.

DATES: Comments and information must be received no later than March 11, 2013.

ADDRESSES: You may submit comments, identified by 0648–BC52, by either of the following methods:

- *Electronic submissions:* Submit all electronic public comments via the Federal eRulemaking Portal *http://www.regulations.gov.*
- Hand delivery or mailing of paper, disk, or CD–ROM comments should be addressed to P. Michael Payne, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225.

Instructions: All comments received are a part of the public record and will generally be posted to *http://www.regulations.gov* without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Michelle Magliocca, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Availability

A copy of the Navy's application may be obtained by visiting the internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.* The Navy's Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) for HSTT was made available to the public on May 11, 2012 (77 FR 27743) and may also be viewed at *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.* Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned address.

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 et seq.) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring, and reporting of such takings are set forth. NMFS has defined ''negligible impact'' in 50 CFR 216.103 as ''an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.''

The National Defense Authorization Act of 2004 (NDAA) (Pub. L. 108–136) removed the ''small numbers'' and ''specified geographical region'' limitations indicated above and amended the definition of ''harassment'' as applies to a ''military readiness activity'' to read as follows (section 3(18)(B) of the MMPA): ''(i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].''

Summary of Request

On April 13, 2012, NMFS received an application from the Navy requesting two LOAs for the take of 39 species of marine mammals incidental to Navy training and testing activities to be conducted in the HSTT Study Area over 5 years. The Navy submitted an addendum on September 24, 2012 and the application was considered complete. The Navy is requesting regulations that would establish a process for authorizing take, via two separate 5-year LOAs, of marine mammals for training activities and testing activities, each proposed to be conducted from 2014 through 2019. The Study Area includes three existing range complexes (Southern California (SOCAL) Range Complex, Hawaii Range Complex (HRC), and Silver Strand Training Complex (SSTC)) plus pierside locations and areas on the high seas where maintenance, training, or testing may occur. The proposed activities are classified as military readiness activities. Marine mammals present in the Study Area may be exposed to sound from active sonar, underwater detonations, and/or pile driving and removal. In addition, incidental takes of marine mammals may occur from ship strikes. The Navy is requesting authorization to take 38 marine mammal species by Level B harassment and 24 marine mammal species by Level A harassment or mortality.

The Navy's application and the HSTT DEIS/OEIS contain proposed acoustic criteria and thresholds that would, in some instances, represent changes from what NMFS has used to evaluate the Navy's proposed activities for past incidental take authorizations. The revised thresholds are based on evaluation of recent scientific studies; a detailed explanation of how they were derived is provided in the HSTT DEIS/OEIS Criteria and Thresholds Technical Report. NMFS is currently updating and revising all of its acoustic criteria and thresholds. Until that process is complete, NMFS will continue its long-standing practice of considering specific

modifications to the acoustic criteria and thresholds currently employed for incidental take authorizations only after providing the public with an opportunity for review and comment. NMFS is requesting comments on all aspects of the proposed rule, and specifically requests comments on the proposed acoustic criteria and thresholds.

Background of Request

The Navy's mission is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. Section 5062 of Title 10 of the United States Code directs the Chief of Naval Operations to train all military forces for combat. The Chief of Naval Operations meets that direction, in part, by conducting at-sea training exercises and ensuring naval forces have access to ranges, operating areas (OPAREAs) and airspace where they can develop and maintain skills for wartime missions and conduct research, development, testing, and evaluation (RDT&E) of naval systems.

The Navy proposes to continue conducting training and testing activities within the HSTT Study Area, which have been ongoing since the 1940s. Recently, most of these activities were analyzed in three separate EISs completed between 2008 and 2011; the Hawaii Range Complex (HRC) EIS/OEIS (U.S. Department of the Navy, 2008a), the Southern California (SOCAL) Range Complex EIS/OEIS (U.S. Department of the Navy, 2008b), and the Silver Strand Training Complex (SSTC) EIS (U.S. Department of the Navy, 2011a). These documents, among others, and their associated MMPA regulations and authorizations, describe the baseline of training and testing activities currently conducted in the Study Area. The tempo and types of training and testing activities have fluctuated due to changing requirements; new technologies; the dynamic nature of international events; advances in warfighting doctrine and procedures; and changes in basing locations for ships, aircraft, and personnel. Such developments influence the frequency, duration, intensity, and location of required training and testing. The Navy's LOA request covers training and testing activities that would occur for a 5-year period following the expiration of the current MMPA authorizations. The Navy has also prepared a DEIS/OEIS analyzing the effects on the human environment of implementing their preferred alternative (among others).

Description of the Specified Activity

The Navy is requesting authorization to take marine mammals incidental to conducting training and testing activities. The Navy has determined that sonar use, underwater detonations, pile driving and removal, and ship strike are the stressors most likely to result in impacts on marine mammals that could rise to the level of harassment. Detailed descriptions of these activities are provided in the HSTT DEIS/OEIS and LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm*) and are summarized here.

Overview of Training Activities

The Navy routinely trains in the HSTT Study Area in preparation for national defense missions. Training activities are categorized into eight functional warfare areas (anti-air warfare; amphibious warfare; strike warfare; anti-surface warfare; anti-submarine warfare; electronic warfare; mine warfare; and naval special warfare). The Navy determined that the following stressors used in these warfare areas are most likely to result in impacts on marine mammals:

- Amphibious warfare (underwater detonations, pile driving and removal)
- Anti-surface warfare (underwater detonations)
- Anti-submarine warfare (active sonar, underwater detonations)
- Mine warfare (active sonar, underwater detonations, and marine mammal systems (see description below))
- Naval special warfare (underwater detonations)

The Navy's activities in anti-air warfare, strike warfare, and electronic warfare do not involve stressors that could result in harassment of marine mammals. Therefore, these activities are not discussed further.

Amphibious Warfare

The mission of amphibious warfare is to project military power from the sea to the shore through the use of naval firepower and Marine Corps landing forces. The Navy uses amphibious warfare to attack a threat located on land by a military force embarked on ships. Amphibious warfare training ranges from individual, crew, and small unit events to large task force exercises. Individual and crew training include amphibious vehicles and naval gunfire support training for shore assaults, boat raids, airfield or port seizures, and reconnaissance. Large-scale amphibious exercises involve ship-to-shore maneuver, naval fire support, such as shore bombardment, and air strike and close air support training. However, the Navy only analyzed those portions of amphibious warfare training that occur at sea, in particular, underwater detonations associated with naval gunfire support training. The Navy conducts other amphibious warfare support activities that could potentially affect marine mammals (such as pile driving and removal) in the near shore region from the beach to about 914 meters (m) from shore.

Anti-Surface Warfare

The mission of anti-surface warfare is to defend against enemy ships or boats. When conducting anti-surface warfare, aircraft use cannons, air-launched cruise missiles, or other precision-guided munitions; ships use torpedoes, naval guns, and surface-to-surface missiles; and submarines use torpedoes or submarine-launched, anti-ship cruise missiles. Anti-surface warfare training includes surface-to-surface gunnery and missile exercises, air-to-surface gunnery and missile exercises, and submarine missile or exercise torpedo launch events.

Anti-Submarine Warfare

The mission of anti-submarine warfare is to locate, neutralize, and defeat hostile submarine threats to surface forces. Anti-submarine warfare is based on the principle of a layered defense of surveillance and attack aircraft, ships, and submarines all searching for hostile submarines. These forces operate together or independently to gain early warning and detection, and to localize, track, target, and attack hostile submarine threats. Anti-submarine warfare training addresses basic skills such as detection and classification of submarines, distinguishing between sounds made by enemy submarines and those of friendly submarines, ships, and marine life. More advanced, integrated anti-submarine warfare training exercises are conducted in coordinated, at-sea training events involving submarines, ships, and aircraft. This training integrates the full spectrum of anti-submarine warfare from detecting and tracking a submarine to attacking a target using either exercise torpedoes or simulated weapons.

Mine Warfare

The mission of mine warfare is to detect, and avoid or neutralize mines to protect Navy ships and submarines and to maintain free access to ports and shipping lanes. Mine warfare also includes offensive mine laying to gain control or deny the enemy access to sea

space. Naval mines can be laid by ships, submarines, or aircraft. Mine warfare training includes exercises in which ships, aircraft, submarines, underwater vehicles, or marine mammal detection systems search for mines. Certain personnel train to destroy or disable mines by attaching and detonating underwater explosives to simulated mines. Other neutralization techniques involve impacting the mine with a bullet-like projectile or intentionally triggering the mine to detonate.

Finally, the Navy deploys California sea lions in the HSTT Study Area for integrated training involving two primary missions areas: To find objects such as inert mine shapes, and to detect swimmers or other intruders around Navy facilities such as piers. When deployed, the animals are part of what the Navy refers to as marine mammal systems. These systems include one or more motorized small boats, several crew members, and a trained marine mammal. Each trained animal is deployed under behavioral control to find the intruding swimmer or submerged object.

Naval Special Warfare

The mission of naval special warfare is to conduct unconventional warfare, direct action, combat terrorism, special reconnaissance, information warfare, security assistance, counter-drug operations, and recovery of personnel from hostile situations. Naval special warfare operations are highly specialized and require continual and intense training. Naval special warfare units are required to utilize a combination of specialized training, equipment, and tactics, including insertion and extraction operations using parachutes, submerged vehicles, rubber boats, and helicopters; boat-to-shore and boat-to-boat gunnery; underwater demolition training; reconnaissance; and small arms training.

Overview of Testing Activities

The Navy researches, develops, tests, and evaluates new platforms, systems, and technologies. Testing activities may occur independently of or in conjunction with training activities. Many testing activities are conducted similarly to Navy training activities and are also categorized under one of the primary mission areas. Other testing activities are unique and are described within their specific testing categories. The Navy determined that stressors used during the following testing activities are most likely to result in impacts on marine mammals:

- Naval Air Systems Command (NAVAIR) Testing
  - Anti-surface warfare testing (underwater detonations)
  - Anti-submarine warfare testing (active sonar, underwater detonations)
  - Mine warfare testing (active sonar, underwater detonations)
- Naval Sea Systems command (NAVSEA) Testing
  - New ship construction (active sonar, underwater detonations)
  - Life cycle activities (active sonar, underwater detonations)
  - Anti-surface warfare/anti-submarine warfare testing (active sonar, underwater detonations)
  - Mine warfare testing (active sonar, underwater detonations)
  - Ship protection systems and swimmer defense testing (active sonar, airguns)
  - Unmanned vehicle testing (active sonar)
  - Other testing (active sonar)
- Space and Naval Warfare Systems Commands (SPAWAR) Testing
  - SPAWAR research, development, test, and evaluation (active sonar)
- Office of Naval Research (ONR) and Naval Research Laboratory (NRL) Testing
  - ONR/NRL research, development, test, and evaluation (active sonar)

Other Navy testing activities do not involve stressors that could result in marine mammal harassment. Therefore, these activities are not discussed further.

Naval Air Systems Command Testing (NAVAIR)

NAVAIR events include testing of new aircraft platforms, weapons, and systems before delivery to the fleet for training activities. NAVAIR also conducts lot acceptance testing of weapons and systems, such as sonobuoys. In general, NAVAIR conducts its testing activities the same way the fleet conducts its training activities. However, NAVAIR testing activities may occur in different locations than equivalent fleet training activities and testing of a particular system may differ slightly from the way the fleet trains with the same system.

Anti-surface Warfare Testing—Anti-surface warfare testing includes air-to-surface gunnery, missile, and rocket exercises. Testing is required to ensure the equipment is fully functional for defense from surface threats. Testing may be conducted on new guns or run rounds, missiles, rockets, and aircraft, and also in support of scientific research to assess new and emerging technologies. Testing events are often integrated into training activities and in most cases the systems are used in the same manner in which they are used for fleet training activities.

Anti-submarine Warfare Testing—Anti-submarine warfare testing addresses basic skills such as detection and classification of submarines, distinguishing between sounds made by enemy submarines and those of friendly submarines, ships, and marine life. More advanced, integrated anti-submarine warfare testing is conducted in coordinated, at-sea training events involving submarines, ships, and aircraft. This testing integrates the full spectrum of anti-submarine warfare from detecting and tracking a submarine to attacking a target using various torpedoes and weapons.

Mine Warfare Testing—Mine warfare testing includes activities in which aircraft detection systems are used to search for and record the location of mines for subsequent neutralization. Mine neutralization tests evaluate a system's effectiveness at intentionally detonating or otherwise disabling the mine. Different mine neutralization systems are designed to neutralize mines either at the sea surface or deployed deeper within the water column. All components of these systems are tested in the at-sea environment to ensure they meet mission requirements.

Naval Sea Systems Command Testing (NAVSEA)

NAVSEA testing activities are aligned with its mission of new ship construction, life cycle support, and other weapon systems development and testing.

New Ship Construction Activities—Ship construction activities include pierside testing of ship systems, tests to determine how the ship performs at sea (sea trials), and developmental and operational test and evaluation programs for new technologies and systems. Pierside and at-sea testing of systems aboard a ship may include sonar, acoustic countermeasures, radars, and radio equipment. During sea trials, each new ship propulsion engine is operated at full power and subjected to high-speed runs and steering tests. At-sea test firing of shipboard weapon systems, including guns, torpedoes, and missiles, are also conducted.

Life Cycle Activities—Testing activities are conducted throughout the life of a Navy ship to verify performance and mission capabilities. Sonar system testing occurs pierside during maintenance, repair, and overhaul availabilities, and at sea immediately following most major overhaul periods. A Combat System Ship Qualification

Trial is conducted for new ships and for ships that have undergone modification or overhaul of their combat systems. Radar cross signature testing of surface ships is conducted on new vessels and periodically throughout a ship's life to measure how detectable the ship is by radar. Electromagnetic measurements of off-board electromagnetic signature are also conducted for submarines, ships, and surface craft periodically.

Other Weapon Systems Development and Testing—Numerous test activities and technical evaluations, in support of NAVSEA's systems development mission, often occur with fleet activities within the Study Area. Tests within this category include, but are not limited to, anti-surface, anti-submarine, and mine warfare, using torpedoes, sonobuoys, and mine detection and neutralization systems.

Space and Naval Warfare Systems Command Testing (SPAWAR)

The mission of SPAWAR is to acquire, develop, deliver, and sustain decision superiority for the warfighter at the right time and for the right cost. SPAWAR Systems Center Pacific is the research and development part of SPAWAR focused on developing and transitioning technologies in the area of command, control, communications, computers, intelligence, surveillance, and reconnaissance. SPAWAR Systems Center Pacific conducts research, development, test, and evaluation projects to support emerging technologies for intelligence, surveillance, and reconnaissance; anti-terrorism and force protection; mine countermeasures; anti-submarine warfare; oceanographic research; remote sensing; and communications. These activities include, but are not limited to, the testing of unmanned undersea and surface vehicles, a wide variety of intelligence, surveillance, and reconnaissance sensor systems, underwater surveillance technologies, and underwater communications.

Office of Naval Research and Naval Research Laboratory Testing (ONR and NRL)

As the Navy's science and technology provider, ONR and NRL provide technology solutions for Navy and Marine Corps needs. ONR's mission is to plan, foster, and encourage scientific research in recognition of its paramount importance as related to the maintenance of future naval power, and the preservation of national security. Further, ONR manages the Navy's basic, applied, and advanced research to foster transition from science and technology to higher levels of research, development, test, and evaluation. The Ocean Battlespace Sensing Department explores science and technology in the areas of oceanographic and meteorological observations, modeling, and prediction in the battlespace environment; submarine detection and classification (anti-submarine warfare); and mine warfare applications for detecting and neutralizing mines in both the ocean and littoral environment. ONR events include research, development, test, and evaluation activities; surface processes acoustic communications experiments; shallow water acoustic communications experiments; sediment acoustics experiments; shallow water acoustic propagation experiments; and long range acoustic propagation experiments.

Sonar, Ordnance, Targets, and Other Systems

The Navy uses a variety of sensors, platforms, weapons, and other devices to meet its mission. Training and testing with these systems may introduce acoustic (sound) energy into the environment. This section describes and organizes sonar systems, ordnance, munitions, targets, and other systems to facilitate understanding of the activities in which these systems are used. Underwater sound is described as one of two types for the purposes of the Navy's application: impulsive and non-impulsive. Underwater detonations of explosives and other percussive events are impulsive sounds. Sonar and similar sound producing systems are categorized as non-impulsive sound sources.

Sonar and Other Non-impulsive Sources—Modern sonar technology includes a variety of sonar sensor and processing systems. The simplest active sonar emits sound waves, or ''pings,'' sent out in multiple directions and the sound waves then reflect off of the target object in multiple directions. The sonar source calculates the time it takes for the reflected sound waves to return; this calculation determines the distance to the target object. More sophisticated active sonar systems emit a ping and then rapidly scan or listen to the sound waves in a specific area. This provides both distance to the target and directional information. Even more advanced sonar systems use multiple receivers to listen to echoes from several directions simultaneously and provide efficient detection of both direction and distance. The Navy rarely uses active sonar continuously throughout activities. When sonar is in use, the pings occur at intervals, referred to as a duty cycle, and the signals themselves are very short in duration. For example, sonar that emits a 1-second ping every 10 seconds has a 10-percent duty cycle. The Navy utilizes sonar systems and other acoustic sensors in support of a variety of mission requirements. Primary uses include the detection of and defense against submarines (anti-submarine warfare) and mines (mine warfare); safe navigation and effective communications; use of unmanned undersea vehicles; and oceanographic surveys.

Ordnance and Munitions—Most ordnance and munitions used during training and testing events fall into three basic categories: Projectiles (such as gun rounds), missiles (including rockets), and bombs. Ordnance can be further defined by their net explosive weight, which considers the type and quantity of the explosive substance without the packaging, casings, bullets, etc. Net explosive weight (NEW) is the trinitrotoluene (TNT) equivalent of energetic material, which is the standard measure of strength of bombs and other explosives. For example, a 12.7-centimeter(cm) shell fired from a Navy gun is analyzed at about 9.5 pounds (lb) (4.3 kilograms (kg)) of NEW. The Navy also uses non-explosive ordnance in place of high explosive ordnance in many training and testing events. Non-explosive ordnance munitions look and perform similarly to high explosive ordnance, but lack the main explosive charge.

Defense Countermeasures—Naval forces depend on effective defensive countermeasures to protect themselves against missile and torpedo attack. Defensive countermeasures are devices designed to confuse, distract, and confound precision guided munitions. Defensive countermeasures analyzed in this LOA application include acoustic countermeasures, which are used by surface ships and submarines to defend against torpedo attack. Acoustic countermeasures are either released from ships and submarines, or towed at a distance behind the ship.

Mine Warfare Systems—The Navy divides mine warfare systems into two categories: mine detection and mine neutralization. Mine detection systems are used to locate, classify, and map suspected mines, on the surface, in the water column, or on the sea floor. The Navy analyzed the following mine detection systems for potential impacts to marine mammals:

- Towed or hull-mounted mine detection systems. These detection systems use acoustic and laser or video sensors to locate and classify suspect mines. Fixed and rotary wing platforms, ships, and unmanned vehicles are used

for towed systems, which can rapidly assess large areas.

• Unmanned/remotely operated vehicles. These vehicles use acoustic and video or lasers to locate and classify mines and provide unique capabilities in nearshore littoral areas, surf zones, ports, and channels.

• Marine mammal systems. The Navy deploys trained Atlantic bottlenose dolphins (*Tursiops truncatus*) and California sea lions (*Zalopus californianus*) for integrated training involving two primary mission areas: to find objects such as inert mine shapes, and to detect swimmers or other intruders around Navy facilities such as piers. These systems also include one or more motorized small boats and several crew members for each trained marine mammal. When not engaged in training, Navy marine mammals are housed in temporary enclosures either on land or aboard ships.

Mine Neutralization Systems—Mine neutralization systems disrupt, disable, or detonate mines to clear ports and shipping lanes, as well as littoral, surf, and beach areas in support of naval amphibious operations. The Navy analyzed the following mine neutralization systems for potential impacts to marine mammals:

• Towed influence mine sweep systems. These systems use towed equipment that mimic a particular ship's magnetic and acoustic signature triggering the mine and causing it to explode.

• Unmanned/remotely operated mine neutralization systems. Surface ships and helicopters operate these systems, which place explosive charges near or directly against mines to destroy the mine.

• Airborne projectile-based mine clearance systems. These systems neutralize mines by firing a small or medium-caliber non-explosive, supercavitating projectile from a hovering helicopter.

• Diver emplaced explosive charges. Operating from small craft, divers put explosive charges near or on mines to destroy the mine or disrupt its ability to function.

Classification of Non-Impulsive and Impulsive Sources Analyzed

In order to better organize and facilitate the analysis of about 300 sources of underwater non-impulsive sound or impulsive energy, the Navy developed a series of source classifications, or source bins. This method of analysis provides the following benefits:

• Allows for new sources to be covered under existing authorizations, as long as those sources fall within the parameters of a ''bin;''

• Simplifies the data collection and reporting requirements anticipated under the MMPA;

• Ensures a conservative approach to all impact analysis because all sources in a single bin are modeled as the loudest source (e.g., lowest frequency, highest source level, longest duty cycle, or largest net explosive weight within that bin);

• Allows analysis to be conducted more efficiently, without compromising the results;

• Provides a framework to support the reallocation of source usage (hours/explosives) between different source bins, as long as the total number and severity of marine mammal takes remain within the overall analyzed and authorized limits. This flexibility is required to support evolving Navy training and testing requirements, which are linked to real world events.

A description of each source classification is provided in Tables 1–3. Non-impulsive sources are grouped into bins based on the frequency, source level when warranted, and how the source would be used. Impulsive bins are based on the net explosive weight of the munitions or explosive devices. The following factors further describe how non-impulsive sources are divided:

• Frequency of the non-impulsive source:

○ Low-frequency sources operate below 1 kilohertz (kHz)

○ Mid-frequency sources operate at or above 1 kHz, up to and including 10 kHz

○ High-frequency sources operate above 10 kHz, up to and including 100 kHz

○ Very high-frequency sources operate above 100, but below 200 kHz

• Source level of the non-impulsive source:

○ Greater than 160 decibels (dB), but less than 180 dB

○ Equal to 180 dB and up to 200 dB

○ Greater than 200 dB

How a sensor is used determines how the sensor's acoustic emissions are analyzed. Factors to consider include pulse length (time source is on); beam pattern (whether sound is emitted as a narrow, focused beam, or, as with most explosives, in all directions); and duty cycle (how often a transmission occurs in a given time period during an event).

There are also non-impulsive sources with characteristics that are not anticipated to result in takes of marine mammals. These sources have low source levels, narrow beam widths, downward directed transmission, short pulse lengths, frequencies beyond known hearing ranges of marine mammals, or some combination of these factors. These sources were not modeled by the Navy, but are qualitatively analyzed in Table 1–4 of the LOA application and the HSTT DEIS/OEIS.

TABLE 1—IMPULSIVE TRAINING AND TESTING SOURCE CLASSES ANALYZED

Source class	Representative munitions	Net explosive weight (lbs)
E1	Medium-caliber projectiles	0.1–0.25 (45.4–113.4 g)
E2	Medium-caliber projectiles	0.26–0.5 (117.9–226.8 g)
E3	Large-caliber projectiles	>0.5–2.5 (>226.8 g–1.1 kg)
E4	Improved Extended Echo Ranging Sonobuoy	>2.5–5.0 (1.1–2.3 kg)
E5	5 in. (12.7 cm) projectiles	>5–10 (>2.3–4.5 kg)
E6	15 lb. (6.8 kg) shaped charge	>10–20 (>4.5–9.1 kg)
E7	40 lb. (18.1 kg) demo block/shaped charge	>20–60 (>9.1–27.2 kg)
E8	250 lb. (113.4 kg) bomb	>60–100 (>27.2–45.4 kg)
E9	500 lb. (226.8 kg) bomb	>100–250 (>45.4–113.4 kg)
E10	1,000 lb. (453.6 kg) bomb	>250–500 (>113.4–226.8 kg)
E11	650 lb. (294.8 kg) mine	>500–650 (>226.8–294.8 kg)
E12	2,000 lb. (907.2 kg) bomb	>650–1,000 (>294.8–453.6 kg)
E13	1,200 lb. (544.3 kg) HBX charge	>1,000–1,740 (>453.6–789.3 kg)

TABLE 2—NON-IMPULSIVE TRAINING SOURCE CLASSES ANALYZED

Source class category	Source class	Description
Mid-Frequency (MF): Tactical and non-tactical sources that produce mid-frequency (1 to 10 kHz) signals.	MF1	Active hull-mounted surface ship sonar (e.g., AN/SQS–53C and AN/SQS–60).
	MF1K	Kingfisher object avoidance mode associated with MF1 sonar.
	MF2	Active hull-mounted surface ship sonar (e.g., AN/SQS–56).
	MF2K	Kingfisher mode associated with MF2 sonar.
	MF3	Active hull-mounted submarine sonar (e.g., AN/BQQ–10).
	MF4	Active helicopter-deployed dipping sonar (e.g., AN/AQS–22 and AN/AQS–13).
	MF5	Active acoustic sonobuoys (e.g., AN/SSQ–62 DICASS).
	MF6	Active underwater sound signal devices (e.g., MK–84).
	MF11	Hull-mounted surface ship sonar with an active duty cycle greater than 80%.
	MF12	High duty cycle—variable depth sonar.
High-Frequency (HF) and Very High-Frequency (VHF): Tactical and non-tactical sources that produce high-frequency (greater than 10 kHz but less than 200 kHz) signals.	HF1	Active hull-mounted submarine sonar (e.g., AN/BQQ–15).
	HF4	Active mine detection, classification, and neutralization sonar (e.g., AN/SQS–20).
Anti-Submarine Warfare (ASW): Tactical sources such as active sonobuoys and acoustic countermeasures systems used during ASW training activities.	ASW1	MF active Deep Water Active Distributed System (DWADS).
	ASW2	MF active Multistatic Active Coherent (MAC) sonobuoy (e.g., AN/SSQ–125).
	ASW3	MF active towed active acoustic countermeasure systems (e.g., AN/SLQ–25 NIXIE).
	ASW4	MF active expendable active acoustic device countermeasures (e.g., MK–3).
Torpedoes (TORP): Source classes associated with active acoustic signals produced by torpedoes.	TORP1	HF active lightweight torpedo sonar (e.g., MK–46, MK–54, or Anti-Torpedo Torpedo).
	TORP2	HF active heavyweight torpedo sonar (e.g., MK–48).

TABLE 3—NON-IMPULSIVE TESTING SOURCE CLASSES ANALYZED

Source class category	Source class	Description
Low-Frequency (LF): Sources that produce low-frequency (less than 1 kilohertz [kHz]) signals.	LF4	Low-frequency sources equal to 180 dB and up to 200 dB.
	LF5	Low-frequency sources less than 180 dB.
	LF6	Low-frequency sonar currently in development (e.g., anti-submarine warfare sonar associated with the Littoral Combat Ship).
Mid-Frequency (MF): Tactical and non-tactical sources that produce mid-frequency (1 to 10 kHz) signals.	MF1	Hull-mounted surface ship sonar (e.g., AN/SQS–53C and AN/SQS–60).
	MF1K	Kingfisher mode associated with MF1 sonar (Sound Navigation and Ranging).
	MF2	Hull-mounted surface ship sonar (e.g., AN/SQS–56).
	MF3	Hull-mounted submarine sonar (e.g., AN/BQQ–10).
	MF4	Helicopter-deployed dipping sonar (e.g., AN/AQS–22 and AN/AQS–13).
	MF5	Active acoustic sonobuoys (e.g., DICASS).
	MF6	Active underwater sound signal devices (e.g., MK–84).
	MF8	Active sources (greater than 200 dB).
	MF9	Active sources (equal to 180 dB and up to 200 dB).
	MF10	Active sources (greater than 160 dB, but less than 180 dB) not otherwise binned.
	MF12	High duty cycle—variable depth sonar.
High-Frequency (HF) and Very High-Frequency (VHF): Tactical and non-tactical sources that produce high-frequency (greater than 10 kHz but less than 200 kHz) signals.	HF1	Hull-mounted submarine sonar (e.g., AN/BQQ–10).
	HF3	Hull-mounted submarine sonar (classified).
	HF4	Mine detection, classification, and neutralization sonar (e.g., AN/SQS–20).
	HF5	Active sources (greater than 200 dB).
	HF6	Active sources (equal to 180 dB and up to 200 dB).
Anti-Submarine Warfare (ASW): Tactical sources such as active sonobuoys and acoustic countermeasures systems used during the conduct of anti-submarine warfare testing activities.	ASW1	Mid-frequency Deep Water Active Distributed System (DWADS).
	ASW2	Mid-frequency Multistatic Active Coherent sonobuoy (e.g., AN/SSQ–125).
	ASW2H	Mid-frequency sonobuoy (e.g., high duty cycle)—Sources that are analyzed by hours.
	ASW3	Mid-frequency towed active acoustic countermeasure systems (e.g., AN/SLQ–25).
	ASW4	Mid-frequency expendable active acoustic device countermeasures (e.g., MK–3).

TABLE 3—NON-IMPULSIVE TESTING SOURCE CLASSES ANALYZED—Continued

Source class category	Source class	Description
Torpedoes (TORP): Source classes associated with the active acoustic signals produced by torpedoes.	TORP1	Lightweight torpedo (e.g., MK–46, MK–54, or Surface Ship Defense System).
	TORP2	Heavyweight torpedo (e.g., MK–48).
Acoustic Modems (M): Systems used to transmit data acoustically through water.	M3	Mid-frequency acoustic modems (greater than 190 dB).
Swimmer Detection Sonar (SD): Systems used to detect divers and submerged *swimmers*.	SD1–SD2	High-frequency sources with short pulse lengths, used for the detection of swimmers and other objects for the purpose of port security.
Airguns (AG): Underwater airguns are used during swimmer defense and diver deterrent training and testing activities.	AG	Up to 60 cubic inch airguns (e.g., Sercel Mini-G).
Synthetic Aperture Sonar (SAS): Sonar in which active acoustic signals are post-processed to form high-resolution images of the seafloor.	SAS1	MF SAS systems.
	SAS2	HF SAS systems.
	SAS3	VHF SAS systems.

Proposed Action

The Navy proposes to continue conducting training and testing activities within the HSTT Study Area. The Navy has been conducting military readiness training and testing activities in the HSTT Study Area since the 1940s. Recently, these activities were analyzed in three separate EISs completed between 2008 and 2011; the Hawaii Range Complex (HRC) EIS/OEIS (U.S. Department of the Navy 2008a), the SOCAL Range Complex EIS/OEIS (U.S. Department of the Navy 2008b), and the Silver Strand Training Complex (SSTC) EIS (U.S. Department of the Navy 2011a). These documents, among others, and their associated MMPA regulations and authorizations, describe the baseline of training and testing activities currently conducted in the Study Area.

The tempo and types of training and testing activities have fluctuated due to changing requirements; the introduction of new technologies; the dynamic nature of international events; advances in warfighting doctrine and procedures; and changes in basing locations for ships, aircraft, and personnel (force structure changes). Such developments have influenced the frequency, duration, intensity, and location of required training and testing.

Training

The Navy proposes to conduct training activities in the Study Area as described in Tables 4 and 5. Detailed information about each proposed activity (stressor, training event, description, sound source, duration, and geographic location) can be found in Appendix A of the HSTT DEIS/OEIS. NMFS used the detailed information in Appendix A of the HSTT DEIS/OEIS to analyze the potential impacts to marine mammals. Table 4 describes the annual number of impulsive source detonations during testing activities within the HSTT Study Area, and Table 5 describes the annual number of hours or items of non-impulsive sources used during training within the HSTT Study Area. The Navy's proposed action is an adjustment to existing baseline training activities to accommodate the following:

- Force structure changes including the relocation of ships, aircraft, and personnel;
- Planned new aircraft platforms, new vessel classes, and new weapons systems;
- Ongoing training activities that were not addressed in previous documentation; and
- New range capabilities, such as hydrophone modifications, upgrades, and replacement at instrumented Navy underwater tracking ranges.

TABLE 4—PROPOSED ANNUAL NUMBER OF IMPULSIVE SOURCE DETONATIONS DURING TRAINING IN THE HSTT STUDY AREA

Explosive class	Net explosive weight (NEW)	Annual in-water detonations (training)
E1	(0.1 lb.–0.25 lb.)	19,840
E2	(0.26 lb.–0.5 lb.)	1,044
E3	(0.6 lb.–2.5 lb.)	3,020
E4	(>2.5 lb.–5 lb.)	668
E5	(>5 lb.–10 lb.)	8,154
E6	(>10 lb.–20 lb.)	538
E7	(>20 lb.–60 lb.)	407
E8	(>60 lb.–100 lb.)	64
E9	(>100 lb.–250 lb.)	16
E10	(>250 lb.–500 lb.)	19
E11	(>500 lb.–650 lb.)	8
E12	(>650 lb.–1000 lb.)	224
E13	(>1000 lb.–1,740 lb.)	9

TABLE 5—ANNUAL HOURS AND ITEMS OF NON-IMPULSIVE SOURCES USED DURING TRAINING WITHIN THE HSTT STUDY AREA

Source class category	Source class	Annual use
Mid-Frequency (MF) Active sources from 1 to 10 kHz	MF1	11,588 hours.
	MF1K	88 hours.
	MF2	3,060 hours.
	MF2K	34 hours.
	MF3	2,336 hours.
	MF4	888 hours.
	MF5	13,718 items.
	MF11	1,120 hours.
	MF12	1,094 hours.
High-Frequency (HF) and Very High-Frequency (VHF) tactical and non-tactical sources that produce signals greater than 10kHz but less than 200 kHz.	HF1	1,754 hours.
	HF4	4,848 hours.
Anti-Submarine Warfare (ASW)	ASW1	224 hours.
Active ASW sources	ASW2	1,800 items.
	ASW3	16,561 hours.
	ASW4	1,540 items.
Torpedoes (TORP)	TORP1	170 items.
Active torpedo sonar	TORP2	400 items.

Testing

The Navy's proposed testing activities are described in Tables 6 and 7. Detailed information about each proposed activity (stressor, testing event, description, sound source, duration, and geographic location) can be found in Appendix A of the HSTT DEIS/OEIS. NMFS used the detailed information in Appendix A of the HSTT DEIS/OEIS to analyze the potential impacts from testing activities on marine mammals. Table 6 describes the annual number of impulsive source detonations during testing activities within the HSTT Study Area, and Table 7 describes the annual number of hours or items of non-impulsive sources used during testing within the HSTT Study Area.

TABLE 6—PROPOSED ANNUAL NUMBER OF IMPULSIVE SOURCE DETONATIONS DURING TESTING ACTIVITIES WITHIN THE HSTT STUDY AREA

Explosive class	Net explosive weight (NEW)	Annual in-water detonations (testing)
E1	(0.1 lb.–0.25 lb.)	14,501
E2	(0.26 lb.–0.5 lb.)	0
E3	(0.6 lb.–2.5 lb.)	2,990
E4	(>2.5 lb.–5 lb.)	753
E5	(>5 lb.–10 lb.)	202
E6	(>10 lb.–20 lb.)	37
E7	(>20 lb.–60 lb.)	21
E8	(>60 lb.–100 lb.)	12
E9	(>100 lb.–250 lb.)	0
E10	(>250 lb.–500 lb.)	31
E11	(>500 lb.–650 lb.)	14
E12	(>650 lb.–1000 lb.)	0
E13	(>1000 lb.–1,740 lb.)	0

TABLE 7—ANNUAL HOURS AND ITEMS OF NON-IMPULSIVE SOURCES USED DURING TESTING WITHIN THE HSTT STUDY AREA

Source class category	Source class	Annual use
Low-Frequency (LF) Sources that produce signals less than 1 kHz.	LF4	52 hours.
	LF5	2,160 hours.
	LF6	192 hours.
Mid-Frequency (MF) Tactical and non-tactical sources that produce signals from 1 to 10 kHz.	MF1	180 hours.
	MF1K	18 hours.
	MF2	84 hours.
	MF3	392 hours.
	MF4	693 hours.
	MF5	5,024 items.

TABLE 7—ANNUAL HOURS AND ITEMS OF NON-IMPULSIVE SOURCES USED DURING TESTING WITHIN THE HSTT STUDY AREA—Continued

Source class category	Source class	Annual use
	MF6	540 items.
	MF8	2 hours.
	MF9	3,039 hours.
	MF10	35 hours.
	MF12	336 hours.
High-Frequency (HF) and Very High-Frequency (VHF): Tactical and non-tactical sources that produce signals greater than 10kHz but less than 200kHz.	HF1	1,025 hours.
	HF3	273 hours.
	HF4	1,336 hours.
	HF5	1,094 hours.
	HF6	3,460 hours.
Anti-Submarine Warfare (ASW) Tactical sources used during anti-submarine warfare training and testing activities.	ASW1	224 hours.
	ASW2	2,260 items.
	ASW2H	255 hours.
	ASW3	1,278 hours.
	ASW4	477 items.
Torpedoes (TORP) Source classes associated with active acoustic signals produced by torpedoes.	TORP1	701 items.
	TORP2	732 items.
Acoustic Modems (M) Transmit data acoustically through the water.	M3	4,995 hours.
Swimmer Detection Sonar (SD) Used to detect divers and submerged swimmers.	SD1	38 hours.
Airguns (AG) Used during swimmer defense and diver deterrent training and testing activities.	AG	5 uses.
Synthetic Aperture Sonar (SAS): Sonar in which active acoustic signals are post-processed to form high-resolution images of the seafloor.	SAS1	2,700 hours.
	SAS2	4,956 hours.
	SAS3	3,360 hours.

Vessels

Vessels used as part of the proposed action include ships, submarines, boats, and Unmanned Undersea Vehicles (UUVs) ranging in size from small, 5-m Rigid Hull Inflatable Boats to 333-m long aircraft carriers. Representative Navy vessel types, lengths, and speeds used in both training and testing activities are shown in Table 8. While these speeds are representative, some vessels operate outside of these speeds due to unique training or safety requirements for a given event. Examples include increased speeds needed for flight operations, full speed runs to test engineering equipment, time critical positioning needs, etc. Examples of decreased speeds include speeds less than 5 knots or completely stopped for launching small boats, certain tactical maneuvers, target launch or retrievals, UUVs etc.

The number of Navy vessels in the HSTT Study Area varies based on training and testing schedules. Most activities include either one or two vessels, with an average of one vessel per activity, and last from a few hours up to two weeks. Multiple ships, however, can be involved with major training events. Vessel movement and the use of in-water devices as part of the proposed action would be concentrated in portions of the Study Area within SOCAL, naval installations at San Diego and Pearl Harbor, and on instrumented underwater ranges. Surface and subsurface vessel operations in the Study Area may result in marine mammal strikes.

TABLE 8—TYPICAL NAVY BOAT AND VESSEL TYPES WITH LENGTH GREATER THAN 18 METERS USED WITHIN THE HSTT STUDY AREA

Vessel type (>18 m)	Example(s) (specifications in meters (m) for length, metric tons (mt) for mass, and knots for speed)	Typical operating speed (knots)
Aircraft Carrier	Aircraft Carrier (CVN) length: 333 m beam: 41 m draft: 12 m displacement: 81,284 mt max. speed: 30+ knots.	10 to 15.
Surface Combatants	Cruiser (CG) length: 173 m beam: 17 m draft: 10 m displacement: 9,754 mt max. speed: 30+ knots.	10 to 15.
	Destroyer (DDG) length: 155 m beam: 18 m draft: 9 m displacement: 9,648 mt max. speed: 30+ knots.	
	Frigate (FFG) length: 136 m beam: 14 m draft: 7 m displacement: 4,166 mt max. speed: 30+ knots.	
	Littoral Combat Ship (LCS) length: 115 m beam: 18 m draft: 4 m displacement: 3,000 mt max. speed: 40+ knots.	

TABLE 8—TYPICAL NAVY BOAT AND VESSEL TYPES WITH LENGTH GREATER THAN 18 METERS USED WITHIN THE HSTT STUDY AREA—Continued

Vessel type (>18 m)	Example(s) (specifications in meters (m) for length, metric tons (mt) for mass, and knots for speed)	Typical operating speed (knots)
Amphibious Warfare Ships	Amphibious Assault Ship (LHA, LHD) length: 253 m beam: 32 m draft: 8 m displacement: 42,442 mt max. speed: 20+ knots.	10 to 15.
	Amphibious Transport Dock (LPD) length: 208 m beam: 32 m draft: 7 m displacement: 25,997 mt max. speed: 20+ knots.	
	Dock Landing Ship (LSD) length: 186 m beam: 26 m draft: 6 m displacement: 16,976 mt max. speed: 20+ knots.	
Mine Warship Ship	Mine Countermeasures Ship (MCM) length: 68 m beam: 12 m draft: 4 m displacement: 1,333 max. speed: 14 knots.	5 to 8.
Submarines	Attack Submarine (SSN) length: 115 m beam: 12 m draft: 9 m displacement: 12,353 mt max. speed: 20+ knots.	8 to 13.
	Guided Missile Submarine (SSGN) length: 171 m beam: 13 m draft: 12 m displacement: 19,000 mt max. speed: 20+ knots.	
Combat Logistics Force Ships*	Fast Combat Support Ship (T–AOE) length: 230 m beam: 33 m draft: 12 m displacement: 49,583 max. speed: 25 knots.	8 to 12.
	Dry Cargo/Ammunition Ship (T–AKE) length: 210 m beam: 32 m draft: 9 m displacement: 41,658 mt max speed: 20 knots.	
	Fleet Replenishment Oilers (T–AO) length: 206 m beam: 30 m draft: 11 displacement: 42,674 mt max. speed: 20 knots.	
	Fleet Ocean Tugs (T–ATF) length: 69 m beam: 13 m draft: 5 m displacement: 2,297 max. speed: 14 knots.	
Support Craft/Other	Landing Craft, Utility (LCU) length: 41m beam: 9 m draft: 2 m displacement: 381 mt max. speed: 11 knots.	3 to 5.
	Landing Craft, Mechanized (LCM) length: 23 m beam: 6 m draft: 1 m displacement: 107 mt max. speed: 11 knots.	
Support Craft/Other Specialized High Speed	MK V Special Operations Craft length: 25 m beam: 5 m displacement: 52 mt max. speed: 50 knots.	Variable.

*CLF vessels are not homeported in Pearl Harbor or San Diego, but are frequently used for various fleet support and training support events in the HSTT Study Area.

Duration and Location

Training and testing activities would be conducted in the HSTT Study Area from January 2014 through January 2019. The HSTT Study Area is comprised of established operating and warning areas across the north-central Pacific Ocean, from Southern California to Hawaii and the International Date Line. The defined Study Area has expanded beyond the areas included in previous Navy authorizations to include transit routes and pierside locations. This expansion is not an increase in the Navy's training and testing area, but rather an increase in the area to be analyzed (i.e., not previously analyzed) under an incidental take authorization in support of the HSTT EIS/OEIS. The Study Area includes three existing range complexes: the Hawaii Range Complex (HRC), the Southern California (SOCAL) Range Complex, and the Silver Strand Training Complex (SSTC). Each range complex is an organized and designated set of specifically bounded geographic areas, which includes a water component (above and below the surface), airspace, and sometimes a land component. Operating areas (OPAREAs) and special use airspace are established within each range complex. These designations are further described in Chapter 2 of the Navy's LOA application. In addition to Navy range complexes, the Study Area includes Navy pierside locations where sonar maintenance and testing activities occur (San Diego Bay, Pearl Harbor) and transit corridors on the high seas where training and sonar testing may occur during vessel transit.

Hawaii Range Complex (HRC)—The HRC geographically encompasses ocean areas located around the Hawaiian Islands chain. The largest component of the HRC is the temporary operating area, which extends north and west from the island of Kauai and totals over 2 million square nautical miles (nm^2) of air and sea space. This area is used for Navy ship transit throughout the year and for missile defense testing activities as required to support missile defense testing activities. Nearly all of the training and testing activities within the HRC take place within the smaller Hawaii OPAREA, which consists of 235,000 nm^2 of special use airspace, and sea and undersea space. The Hawaii OPAREA is the portion of the range complex immediately surrounding the island chain of Hawaii. Military activities and exercises were excluded from the list of prohibitions triggered when the Monument was established in 2006, so long as the activities are ''carried out in a manner that avoids, to the extent practicable and consistent with operational requirements, adverse impacts on monument resources and qualities.'' More detailed information on the HRC, including maps, is provided in Chapter 2 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

Southern California (SOCAL) Range Complex—The SOCAL Range Complex is situated between Dana Point and San Diego, and extends more than 600 nm southwest into the Pacific Ocean. The two primary components of the SOCAL Range Complex are the ocean operating areas and the special use airspace. The SOCAL Range Complex includes San Diego Bay and a small portion of the Point Mugu Sea Range. The Silver Strand Training Complex is also included as part of the Southern California portion for this application. More detailed information on the SOCAL Range Complex, including maps, is provided in Chapter 2 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

Transit Corridor—In addition to the three range complexes, a transit corridor outside the bounds of existing range

complexes is included in the Navy's request. This transit corridor is important to the Navy in that it provides adequate air, sea, and undersea space in which ships and aircraft can conduct training and some sonar maintenance and testing while en route between Southern California and Hawaii. The transit corridor is an area encompassing the shortest distance from San Diego to the center of the HRC. While in transit, ships and aircraft would, at times, conduct basic and routine unit level training as long as the training does not interfere with the primary objective of reaching their intended destination. Ships would also conduct sonar maintenance, which includes active sonar transmissions. The portion of the transit corridor to the east of 140° west longitude is included in the analysis of SOCAL activities and the area to the west of that meridian is included in the analysis of HRC activities since these portions of the corridor correspond with the marine mammal stocks in those range complexes.

Pierside Locations—The Study Area also includes select pierside locations where Navy surface ship and submarine sonar maintenance testing occur. These pierside locations include channels and transit routes in ports, and facilities associated with ports and shipyards at Navy piers in San Diego, California, and Navy piers, shipyards, and the Intermediate Maintenance Facility in Pearl Harbor, Hawaii.

Description of Marine Mammals in the Area of the Specified Activities

Thirty-nine marine mammal species are known to occur in the Study Area, including seven mysticetes (baleen whales), 25 odontocetes (dolphins and toothed whales), six pinnipeds (seals and sea lions), and the Southern sea otter. Among these species, there are 72 stocks managed by NMFS or the U.S. Fish and Wildlife Service (USFWS) in the U.S. Exclusive Economic Zone (EEZ). These species and their numbers are presented in Table 9 and relevant information on their status, distribution, and seasonal distribution (when applicable) is presented in Chapter 4 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*). Consistent with NMFS most recent Pacific Stock Assessment Report, a single species may include multiple stocks recognized for management purposes (e.g., spinner dolphin), while other species are grouped into a single stock due to limited species-specific information (e.g., beaked whales belonging to the genus *Mesoplodon*).

Species that may have once inhabited and transited the Study Area, but have not been sighted in recent years, include the North Pacific right whale (*Eubalaena japonica*), harbor porpoise (*Phocoena phocoena*), and Steller sea lion (*Eumetopias jubatus*). These species are not expected to be exposed to or affected by any project activities and, therefore, are not discussed further.

TABLE 9—MARINE MAMMALS WITH POSSIBLE OR CONFIRMED PRESENCE WITHIN THE HSTT STUDY AREA

Common name	Scientific name	Study area	Stock	Stock abundance CV	Study area abundance (CV)	Occurrence in study area	ESA/MMPA Status
Order Cetacea Suborder Mysticeti (Baleen Whales)							
Family Balaenopteridae (Rorquals)							
Humpback whale	*Megaptera novaeangliae*.	SOCAL	California, Oregon, & Washington.	2,043 −0.1	36 −0.51	Seasonal; More sightings around the northern Channel Islands.	Endangered/Depleted.
		HRC	Central North Pacific.	10,103 (N/A)	4,491 (N/A)	Seasonal; Throughout known breeding grounds during winter and spring (most common November through April).	Endangered/Depleted.
Blue whale	*Balaenoptera musculus*.	SOCAL	Eastern North Pacific.	2,497 −0.24	842 −0.2	Seasonal; arrive April–May; more common late summer to fall.	Endangered/Depleted.
		HRC	Central North Pacific.	No data.	No data.	Seasonal; infrequent winter migrant; few sightings.	Endangered/Depleted.
Fin whale	*Balaenoptera physalus*.	SOCAL	California, Oregon, & Washington.	3,044 −0.18	359 −0.4	Year-round presence.	Endangered/Depleted.
		HRC	Hawaiian	174 −0.72	174 −0.72	Seasonal; mainly fall and winter although considered rare in HRC.	Endangered/Depleted.
Sei whale	*Balaenoptera borealis*.	SOCAL	Eastern North Pacific.	126 −0.53	7 −1.07	Rare; infrequently sighted in California. Only nine confirmed sightings on WA/OR/CA surveys from 1991–2008.	Endangered/Depleted.

TABLE 9—MARINE MAMMALS WITH POSSIBLE OR CONFIRMED PRESENCE WITHIN THE HSTT STUDY AREA—Continued

Common name	Scientific name	Study area	Stock	Stock abundance CV	Study area abundance (CV)	Occurrence in study area	ESA/MMPA Status
		HRC	Hawaiian	77 −1.06	77 −1.06	Rare; limited sightings of seasonal migrants that feed at higher latitudes.	Endangered/Depleted.
Bryde's whale	*Balaenoptera edeni.*	SOCAL	Eastern Tropical Pacific.	13,000 −0.2	7 −1.07	Limited summer occurrence.	
		HRC	Hawaiian	469 −0.45	469 −0.45	Uncommon; distributed throughout the Hawaii Exclusive Economic Zone.	
Minke whale	*Balaenoptera acutorostrata.*	SOCAL	California, Oregon, & Washington.	478 −1.36	226 −1.02	Less common in summer; small numbers around northern Channel Islands.	
		HRC	Hawaiian	No data.	No data.	Regular but seasonal occurrence (November–March).	
Family Eschrichtildae (Gray Whale)							
Gray whale	*Eschrichtius robustus.*	SOCAL	Eastern North Pacific.	18,813 −0.07	Population migrates through SOCAL	Transient during seasonal migrations.	
		HRC	No known occurrence				
Suborder Odontoceti (Toothed Whales)							
Family Physeteridae (Sperm Whale)							
Sperm whale	*Physeter macrocephalus.*	SOCAL	California, Oregon, & Washington.	971 −0.31	607 −0.57	Common year round; more likely in waters > 1,000 m, most often > 2,000 m.	Endangered/Depleted.
		HRC	Hawaiian	6,919 −0.81	6,919 −0.81	Widely distributed year round; more likely in waters > 1,000 m, most often > 2,000 m.	Endangered/Depleted.
Family Kogiidae (Pygmy and Dwarf Sperm Whale)							
Pygmy sperm whale.	*Kogia breviceps*	SOCAL	California, Oregon, & Washington.	579 −1.02		Seaward of 500–1000 m; limited sightings over entire Southern Cal. Bight.	
	HRC	Hawaiian	7,138 ..... −1.12	7,138 −1.12	Stranding numbers suggest this species is more common than infrequent sightings during survey (Barlow 2006) indicated.		
Dwarf sperm whale.	*Kogia sima*	SOCAL	California, Oregon, & Washington.	Unknown		Seaward of 500–1000 m; no confirmed sightings over entire Southern Cal. Bight (all Kogia spp. or Kogia breviceps).	

TABLE 9—MARINE MAMMALS WITH POSSIBLE OR CONFIRMED PRESENCE WITHIN THE HSTT STUDY AREA—Continued

Common name	Scientific name	Study area	Stock	Stock abundance CV	Study area abundance (CV)	Occurrence in study area	ESA/MMPA Status
		HRC	Hawaiian	17,519 −0.74	17,519 −0.74	Stranding numbers suggest this species is more common than infrequent sightings during survey (Barlow 2006) indicated.	
Family Delphinidae (Dolphins)							
Killer whale	*Orcinus orca*	SOCAL	Eastern North Pacific Offshore.	240 −0.49	30 −0.73	Uncommon; occurs infrequently; more likely in winter.	
		SOCAL	Eastern North Pacific Transient.	451 −0.49		Uncommon; occurs infrequently; more likely in winter.	
		HRC	Hawaiian	349 −0.98	349 −0.98	Uncommon; infrequent sightings.	
False killer whale	*Pseudorca crassidens*.	SOCAL	Eastern Tropical Pacific.	Unknown		Uncommon; warm water species; although stranding records from the Channel Islands.	
		HRC	Hawaii Insular [7],[8].	151 −0.2	151 −0.2	Regular	Endangered.
		HRC	Hawaii Pelagic[7]	1,503 −0.66	1,503 −0.66	Regular	
		HRC	Northwest Hawaiian Islands[7].	522 −1.09	522 −1.09	Regular	
Pygmy killer whale.	*Feresa attenuata*	SOCAL	Tropical	Unknown	Extralimital.	Extralimital within the south-west boundary of the SOCAL Range Complex.	
		HRC	Hawaiian	956 −0.83	956 −0.83	Year-round resident; abundance based on 3 sightings (Barlow 2006)..	
Short-finned pilot whale.	*Globicephala macrorhynchus*.	SOCAL	California, Oregon, & Washington.	760 −0.64	118 −1.04	Uncommon; more common before 1982.	
		HRC	Hawaiian	8,870 −0.38	8,870 −0.38	Commonly observed around main Hawaiian Islands and Northwestern Hawaiian Islands.	
Melon-headed whale.	*Peponocephala electra*.	SOCAL	No known occurrence				
		HRC	Hawaiian	2,950 −1.17	2,950 −1.17	Regular..	
Long-beaked common dolphin.	*Delphinus capensis*.	SOCAL	California	27,046 −0.59	17,530 −0.57	Common; more inshore distribution (within 50 nm of coast).	
		HRC	No known occurrence				
Short-beaked common dolphin.	*Delphinus delphis*.	SOCAL	California, Oregon, & Washington.	411,211 −0.21	165,400 −0.19	Common; one of the most abundant SOCAL dolphins; higher summer densities.	
		HRC	No known occurrence				

TABLE 9—MARINE MAMMALS WITH POSSIBLE OR CONFIRMED PRESENCE WITHIN THE HSTT STUDY AREA—Continued

Common name	Scientific name	Study area	Stock	Stock abundance CV	Study area abundance (CV)	Occurrence in study area	ESA/MMPA Status
Bottlenose dolphin.	*Tursiops truncatus*.	SOCAL	California Coastal.	323 −0.13	323 −0.13	Limited, small population within 1 km of shore.	
		SOCAL	California, Oregon, & Washington Offshore.	1,006 −0.48	1,831 −0.47	Common	
		HRC	Hawaii Pelagic ..	3,178 −0.59	3,178 −0.59	Common in deep offshore waters.	
		HRC	Kauai and Niihau.	147 −0.11	147 −0.11	Common in shallow nearshore waters (1000 m or less).	
		HRC	Oahu	594 −0.54	594 −0.54	Common in shallow nearshore waters (1000 m or less).	
		HRC	4-Islands Region	153 −0.24	153 −0.24	Common in shallow nearshore waters (1000 m or less).	
		HRC	Hawaii Island	102 −0.13	102 −0.13	Common in shallow nearshore waters (1000 m or less).	
Pantropical spotted dolphin.	*Stenella attenuata*.	SOCAL	Eastern Tropical Pacific.	Unknown.		Rare; associated with warm tropical surface waters.	
		HRC	Hawaiian	8,978 −0.48	8,978 −0.48	Common; primary occurrence between 100 and 4,000 meters depth.	
Striped dolphin ...	*Stenella coerulealba*.	SOCAL	California, Oregon, & Washington.	10,908 −0.34	8,697 −0.34	Occasional visitor; warm water oceanic species.	
		HRC	Hawaiian	13,143 −0.46	13,143 −0.46	Occurs regularly year round but infrequent sighting data.	
Spinner dolphin ..	*Stenella longirostris*.	SOCAL	No known occurrence				
		HRC	Hawaii Pelagic ..	Unknown.	3,351 −0.74 for entire Hawaiian Islands Stock Complex	Common year round in offshore waters.	
		HRC	Hawaii Island	Unknown.	3,351 −0.74 for entire Hawaiian Islands Stock Complex	Common year round; rest in nearshore waters during the day and move offshore to feed at night.	
		HRC	Oahu/4-Islands ..	Unknown.	3,351 −0.74 for entire Hawaiian Islands Stock Complex	Common year round; rest in nearshore waters during the day and move offshore to feed at night.	
		HRC	Kauai/Niihau	Unknown.	3,351 −0.74 for entire Hawaiian Islands Stock Complex	Common year round; rest in nearshore waters during the day and move offshore to feed at night.	

TABLE 9—MARINE MAMMALS WITH POSSIBLE OR CONFIRMED PRESENCE WITHIN THE HSTT STUDY AREA—Continued

Common name	Scientific name	Study area	Stock	Stock abundance CV	Study area abundance (CV)	Occurrence in study area	ESA/MMPA Status
		HRC	Pearl and Hermes Reef.	Unknown.	3,351 −0.74 for entire Hawaiian Islands Stock Complex	Common year round; rest in nearshore waters during the day and move offshore to feed at night.	
		HRC	Kure/Midway	Unknown.	3,351 −0.74 for entire Hawaiian Islands Stock Complex	Common year round; rest in nearshore waters during the day and move offshore to feed at night.	
Rough-toothed dolphin.	*Steno bredanensis*.	SOCAL	Tropical and warm temperate.	Unknown.		Rare; more tropical offshore species.	
		HRC	Hawaiian	8,709 −0.45	8,709 −0.45	Common throughout the main Hawaiian Islands and Hawaii Exclusive Economic Zone.	
Pacific white-sided dolphin.	*Lagenorhynchus obliquidens*.	SOCAL	California, Oregon, & Washington.	26,930 −0.28	2,196 −0.71	Common; year-round cool water species; more abundant November–April.	
		HRC	No known occurrence				
Northern right whale dolphin.	*Lissodelphis borealis*.	SOCAL	California, Oregon, & Washington.	8,334 −0.4	1,172 −0.52	Common; cool water species; more abundant November–April.	
		HRC	No known occurrence				
Fraser's dolphin	*Lagenodelphis hosei*.	SOCAL	No known occurrence				
		HRC	Hawaiian	10,226 −1.16	10,226 −1.16	Tropical species only recently documented within Hawaii Exclusive Economic Zone (2002 survey).	
Risso's dolphins	*Grampus griseus*	SOCAL	California, Oregon, & Washington.	6,272 −0.3	3,418 −0.31	Common; present in summer, but higher densities November–April.	
		HRC	Hawaiian	2,372 −0.97	2,372 −0.97	Have been considered rare but six sightings in Hawaii Exclusive Economic Zone during 2002 survey.	
Family Phocoenidae (Porpoises)							
Dall's porpoise ...	*Phocoenoidea dalli*.	SOCAL	California, Oregon, & Washington.	42,000 −0.33	727 −0.99	Common in cold water periods; more abundant November–April.	
		HRC	No known occurrence				

TABLE 9—MARINE MAMMALS WITH POSSIBLE OR CONFIRMED PRESENCE WITHIN THE HSTT STUDY AREA—Continued

Common name	Scientific name	Study area	Stock	Stock abundance CV	Study area abundance (CV)	Occurrence in study area	ESA/MMPA Status
Family Ziphiidae (Beaked Whales)							
Cuvier's beaked whale.	*Ziphius cavirostris.*	SOCAL	California, Oregon, & Washington.	2,143 −0.65	911 −0.68	Possible year-round occurrence but difficult to detect due to diving behavior.	
		HRC	Hawaiian	15,242 −1.43	15,242 −1.43	Year-round occurrence but difficult to detect due to diving behavior.	
Baird's beaked whale.	*Berardius bairdii*	SOCAL	California, Oregon, & Washington.	907 −0.49	127 −1.14	Primarily along continental slope from late spring to early fall.	
		HRC	No known occurrence				
Longman's beaked whale.	*Indopacetus pacificus.*	SOCAL	No known occurrence				
		HRC	Hawaiian	1,007 −1.26	1,007 −1.26	One of the rarest and least known cetacean species; abundance based on Barlow 2006 with 3 sightings, however, multiple sightings during 2010 HICEAS.	
Blainville's beaked whale.	*Mesoplodon densirostris.*	SOCAL	California, Oregon, & Washington.	603 −1.16	132 (0.96; for Mesoplodon spp.).	Distributed throughout deep waters and continental slope regions; difficult to detect given diving behavior.	
		HRC	Hawaiian	2,872 −1.25	2,872 −1.25	Year-round occurrence but difficult to detect due to diving behavior.	
Mesoplodont beaked whales (SOCAL estimates also include Blainville's beaked whale listed separately above).	*Mesoplodon spp.*	SOCAL	California, Oregon, & Washington.	1,024 −0.77	132 −0.96	Distributed throughout deep waters and continental slope regions; difficult to detect given diving behavior. Limited sightings; generally seaward of 500–1000 m.	
		HRC	No known occurrence of five Mesoplodon species (M. carlhubbsi, M. ginkgodens, M. perrini, M. peruvianus, M. stejnegeri)				
Suborder Pinnipedia [9, 10]							
Family Otariidae (Fur Seals and Sea Lions)							
California sea lion.	*Zalophus californianus.*	SOCAL	U.S. Stock	238,000		Most common pinniped, Channel Islands breeding sites in summer.	
		HRC	No known occurrence				

TABLE 9—MARINE MAMMALS WITH POSSIBLE OR CONFIRMED PRESENCE WITHIN THE HSTT STUDY AREA—Continued

Common name	Scientific name	Study area	Stock	Stock abundance CV	Study area abundance (CV)	Occurrence in study area	ESA/MMPA Status
Northern fur seal	*Callorhinus ursinus*.	SOCAL	San Miguel Island.	9,968	Stock is outside of SOCAL.	Common; small population breeds on San Miguel Island. May–October.	
		HRC	No known occurrence				
Guadalupe fur seal.	*Arctocephalus townsendi*.	SOCAL	Mexico	7,408		Rare; Occasional visitor to northern Channel Islands; mainly breeds on Guadalupe Island, Mexico, May–July.	Threatened/Depleted.
		HRC	No known occurrence				
Family Phocidae (True Seals)							
Hawaiian monk seal.	*Monachus schauinslandi*.	SOCAL	No known occurrence				
		HRC	Hawaiian	1,161	1,161	Predominantly occur at Northwestern Hawaiian Islands; approximately 150 in Main Hawaiian Islands.	Endangered/Depleted.
Northern elephant seal.	*Mirounga angustirostris*.	SOCAL	California Breeding.	124,000	SNI 9,794 pups in 2000. SCI up to 16 through 2000	Common; Channel Island haul-outs of different age classes; including SCI December–March and April–August; spend 8–10 months at sea.	
		HRC				Extralimital.	
Harbor seal	*Phoca vitulina* ...	SOCAL	California	34,233	5,271 (All age classes from aerial counts).	Common; Channel Islands haul-outs including SCI and La Jolla; bulk of stock found north of Pt. Conception.	
		HRC	No known occurrence				

Information on the status, distribution, abundance, and vocalizations of marine mammal species in the Study Area may be viewed in Chapter 4 of their LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*). Further information on the general biology and ecology of marine mammals is included in the HSTT Draft EIS/OEIS. In addition, NMFS publishes annual stock assessment reports for marine mammals, including stocks that occur within the Study Area (*http://www.nmfs.noaa.gov/pr/species/mammals*).

Marine Mammal Hearing and Vocalizations

Cetaceans have an auditory anatomy that follows the basic mammalian pattern, with some changes to adapt to the demands of hearing underwater. The typical mammalian ear is divided into an outer ear, middle ear, and inner ear. The outer ear is separated from the inner ear by a tympanic membrane, or eardrum. In terrestrial mammals, the outer ear, eardrum, and middle ear transmit airborne sound to the inner ear, where the sound waves are propagated through the cochlear fluid. Since the impedance of water is close to that of the tissues of a cetacean, the outer ear is not required to transduce sound energy as it does when sound waves travel from air to fluid (inner ear). Sound waves traveling through the inner ear cause the basilar membrane to vibrate. Specialized cells, called hair cells, respond to the vibration and produce nerve pulses that are transmitted to the central nervous system. Acoustic energy causes the basilar membrane in the cochlea to vibrate. Sensory cells at different positions along the basilar membrane are excited by different frequencies of sound (Pickles, 1998).

Marine mammal vocalizations often extend both above and below the range of human hearing; vocalizations with frequencies lower than 20 Hz are labeled as infrasonic and those higher than 20 kHz as ultrasonic (National Research Council (NRC), 2003; Figure 4–1). Measured data on the hearing abilities of cetaceans are sparse, particularly for the larger cetaceans such as the baleen whales. The auditory thresholds of some of the smaller

odontocetes have been determined in captivity. It is generally believed that cetaceans should at least be sensitive to the frequencies of their own vocalizations. Comparisons of the anatomy of cetacean inner ears and models of the structural properties and the response to vibrations of the ear's components in different species provide an indication of likely sensitivity to various sound frequencies. The ears of small toothed whales are optimized for receiving high-frequency sound, while baleen whale inner ears are best in low to infrasonic frequencies (Ketten, 1992; 1997; 1998).

Baleen whale vocalizations are composed primarily of frequencies below 1 kHz, and some contain fundamental frequencies as low as 16 Hz (Watkins *et al.,* 1987; Richardson *et al.,* 1995; Rivers, 1997; Moore *et al.,* 1998; Stafford *et al.,* 1999; Wartzok and Ketten, 1999) but can be as high as 24 kHz (humpback whale; Au *et al.,* 2006). Clark and Ellison (2004) suggested that baleen whales use low-frequency sounds not only for long-range communication, but also as a simple form of echo ranging, using echoes to navigate and orient relative to physical features of the ocean. Information on auditory function in baleen whales is extremely lacking. Sensitivity to low-frequency sound by baleen whales has been inferred from observed vocalization frequencies, observed reactions to playback of sounds, and anatomical analyses of the auditory system. Although there is apparently much variation, the source levels of most baleen whale vocalizations lie in the range of 150–190 dB re 1 µPa at 1 m. Low-frequency vocalizations made by baleen whales and their corresponding auditory anatomy suggest that they have good low-frequency hearing (Ketten, 2000), although specific data on sensitivity, frequency or intensity discrimination, or localization abilities are lacking. Marine mammals, like all mammals, have typical U-shaped audiograms that begin with relatively low sensitivity (high threshold) at some specified low frequency with increased sensitivity (low threshold) to a species specific optimum followed by a generally steep rise at higher frequencies (high threshold) (Fay, 1988).

The toothed whales produce a wide variety of sounds, which include species-specific broadband ''clicks'' with peak energy between 10 and 200 kHz, individually variable ''burst pulse'' click trains, and constant frequency or frequency-modulated (FM) whistles ranging from 4 to 16 kHz (Wartzok and Ketten, 1999). The general consensus is that the tonal vocalizations (whistles) produced by toothed whales play an important role in maintaining contact between dispersed individuals, while broadband clicks are used during echolocation (Wartzok and Ketten, 1999). Burst pulses have also been strongly implicated in communication, with some scientists suggesting that they play an important role in agonistic encounters (McCowan and Reiss, 1995), while others have proposed that they represent ''emotive'' signals in a broader sense, possibly representing graded communication signals (Herzing, 1996). Sperm whales, however, are known to produce only clicks, which are used for both communication and echolocation (Whitehead, 2003). Most of the energy of toothed whale social vocalizations is concentrated near 10 kHz, with source levels for whistles as high as 100 to 180 dB re 1 µPa at 1 m (Richardson *et al.,* 1995). No odontocete has been shown audiometrically to have acute hearing (<80 dB re 1 µPa) below 500 Hz (DoN, 2001). Sperm whales produce clicks, which may be used to echolocate (Mullins *et al.,* 1988), with a frequency range from less than 100 Hz to 30 kHz and source levels up to 230 dB re 1 µPa 1 m or greater (Mohl *et al.,* 2000).

Marine Mammal Density Estimates

A quantitative analysis of impacts on a species requires data on the abundance and distribution of the species population in the potentially impacted area. One metric for performing this type of analysis is density, which is the number of animals present per unit area. The Navy compiled existing, publically available density data for use in the quantitative acoustic impact analysis. There is no single source of density data for every area of the world, species, and season because of the costs, resources, and effort required to provide adequate survey coverage to sufficiently estimate density. Therefore, to estimate marine mammal densities for large areas like the HSTT Study Area, the Navy compiled data from several sources. The Navy developed a hierarchy of density data sources to select the best available data based on species, area, and time (season). The resulting Geographic Information System database, called the Navy Marine Species Density Database, includes seasonal density values for every marine mammal species present within the HSTT Study Area (Navy, 2012).

The Navy Marine Species Density Database includes a compilation of the best available density data from several primary sources and published works including survey data from NMFS within the U.S. Exclusive Economic Zone. The Navy ranked their modeling methods as follows:

1. Density spatial model based estimates will be used when available (e.g., NMFS' Southwest Fisheries Science Center models for the California Current Ecosystem and the Central Pacific).

2. If no density spatial model based estimates are available, the following can be used in order of preference:

a. Density estimates using designed-based methods incorporating line-transect survey data and involving spatial stratification (i.e., estimates split by depth strata or arbitrary survey sub-regions).

b. Density estimates using designed-based methods incorporating only line-transect survey data (i.e., regional density estimate, stock assessment report).

c. Density estimates derived using a Relative Environmental Suitability (RES) model in conjunction with survey data from Sea Mammal Research Unit (SMRU) Ltd or in conjunction with a global population estimate from Kaschner *et al.'s* (2006) density data.

In some cases, extrapolation from neighboring regional density estimates or population/stock assessments is appropriate based on expert opinion. This is often preferred over using RES models because of discrepancies identified by local expert knowledge. This includes an extrapolation of no occurrence based on other sources of data such as the NMFS stock assessment reports or expert judgment. Additional information on the density data sources and how the database was applied to the HSTT Study Area is detailed in the Navy Marine Species Density Database Technical Report (*hstteis.com/DocumentsandReferences/HSTTDocuments/SupportingTechnicalDocuments.aspx*).

Brief Background on Sound

An understanding of the basic properties of underwater sound is necessary to comprehend many of the concepts and analyses presented in this document. A summary is included below.

Sound is a wave of pressure variations propagating through a medium (e.g., water). Pressure variations are created by compressing and relaxing the medium. Sound measurements can be expressed in two forms: Intensity and pressure. Acoustic intensity is the average rate of energy transmitted through a unit area in a specified direction and is expressed in watts per square meter (W/m^2). Acoustic intensity is rarely measured directly, but rather

from ratios of pressures; the standard reference pressure for underwater sound is 1 microPascal (μPa); for airborne sound, the standard reference pressure is 20 μPa (Richardson *et al.,* 1995).

Acousticians have adopted a logarithmic scale for sound intensities, which is denoted in decibels (dB). Decibel measurements represent the ratio between a measured pressure value and a reference pressure value (in this case 1 μPa or, for airborne sound, 20 μPa). The logarithmic nature of the scale means that each 10-dB increase is a ten-fold increase in acoustic power (and a 20-dB increase is then a 100-fold increase in power; and a 30-dB increase is a 1,000-fold increase in power). A ten-fold increase in acoustic power does not mean that the sound is perceived as being ten times louder, however. Humans perceive a 10-dB increase in sound level as a doubling of loudness, and a 10-dB decrease in sound level as a halving of loudness. The term ''sound pressure level'' implies a decibel measure and a reference pressure that is used as the denominator of the ratio. Throughout this document, NMFS uses 1 microPascal (denoted re: 1μPa) as a standard reference pressure unless noted otherwise.

It is important to note that decibel values underwater and decibel values in air are not the same (different reference pressures and densities/sound speeds between media) and should not be directly compared. Because of the different densities of air and water and the different decibel standards (i.e., reference pressures) in air and water, a sound with the same level in air and in water would be approximately 62 dB lower in air. Thus, a sound that measures 160 dB (re 1 μPa) underwater would have the same approximate effective level as a sound that is 98 dB (re 20 μPa) in air.

Sound frequency is measured in cycles per second, or Hertz (abbreviated Hz), and is analogous to musical pitch; high-pitched sounds contain high frequencies and low-pitched sounds contain low frequencies. Natural sounds in the ocean span a huge range of frequencies: From earthquake noise at 5 Hz to harbor porpoise clicks at 150,000 Hz (150 kHz). These sounds are so low or so high in pitch that humans cannot even hear them; acousticians call these infrasonic (typically below 20 Hz) and ultrasonic (typically above 20,000 Hz) sounds, respectively. A single sound may be made up of many different frequencies together. Sounds made up of only a small range of frequencies are called ''narrowband'', and sounds with a broad range of frequencies are called ''broadband''; explosives are an example of a broadband sound source and active tactical sonars are an example of a narrowband sound source.

When considering the influence of various kinds of sound on the marine environment, it is necessary to understand that different kinds of marine life are sensitive to different frequencies of sound. Based on available behavioral data, audiograms derived using behavioral protocols or auditory evoked potential (AEP) techniques, anatomical modeling, and other data, Southall *et al.* (2007) designate ''functional hearing groups'' for marine mammals and estimate the lower and upper frequencies of functional hearing of the groups. Further, the frequency range in which each group's hearing is estimated as being most sensitive is represented in the flat part of the M-weighting functions (which are derived from the audiograms described above; see Figure 1 in Southall *et al.,* 2007) developed for each broad group. The functional groups and the associated frequencies are indicated below (though, again, animals are less sensitive to sounds at the outer edge of their functional range and most sensitive to sounds of frequencies within a smaller range somewhere in the middle of their functional hearing range):

- Low-frequency cetaceans—functional hearing is estimated to occur between approximately 7 Hz and 30 kHz;
- Mid-frequency cetaceans—functional hearing is estimated to occur between approximately 150 Hz and 160 kHz;
- High-frequency cetaceans—functional hearing is estimated to occur between approximately 200 Hz and 180 kHz;
- Pinnipeds in water—functional hearing is estimated to occur between approximately 75 Hz and 75 kHz.

The estimated hearing range for low-frequency cetaceans has been extended slightly from previous analyses (from 22 to 30 kHz). This decision is based on data from Watkins *et al.* (1986) for numerous mysticete species, Au *et al.* (2006) for humpback whales, an abstract from Frankel (2005) and paper from Lucifredi and Stein (2007) on gray whales, and an unpublished report (Ketten and Mountain, 2009) and abstract (Tubelli *et al.,* 2012) for minke whales. As more data from more species and/or individuals become available, these estimated hearing ranges may require modification.

When sound travels (propagates) from its source, its loudness decreases as the distance traveled by the sound increases. Thus, the loudness of a sound at its source is higher than the loudness of that same sound a kilometer away. Acousticians often refer to the loudness of a sound at its source (typically referenced to one meter from the source) as the source level and the loudness of sound elsewhere as the received level (i.e., typically the receiver). For example, a humpback whale 3 km from a device that has a source level of 230 dB may only be exposed to sound that is 160 dB loud, depending on how the sound travels through water (e.g., spherical spreading [3 dB reduction with doubling of distance] was used in this example). As a result, it is important to understand the difference between source levels and received levels when discussing the loudness of sound in the ocean or its impacts on the marine environment.

As sound travels from a source, its propagation in water is influenced by various physical characteristics, including water temperature, depth, salinity, and surface and bottom properties that cause refraction, reflection, absorption, and scattering of sound waves. Oceans are not homogeneous and the contribution of each of these individual factors is extremely complex and interrelated. The physical characteristics that determine the sound's speed through the water will change with depth, season, geographic location, and with time of day (as a result, in actual active sonar operations, crews will measure oceanic conditions, such as sea water temperature and depth, to calibrate models that determine the path the sonar signal will take as it travels through the ocean and how strong the sound signal will be at a given range along a particular transmission path). As sound travels through the ocean, the intensity associated with the wavefront diminishes, or attenuates. This decrease in intensity is referred to as propagation loss, also commonly called transmission loss.

Metrics Used in This Document

This section includes a brief explanation of the two sound measurements (sound pressure level (SPL) and sound exposure level (SEL)) frequently used to describe sound levels in the discussions of acoustic effects in this document.

Sound pressure level (SPL)—Sound pressure is the sound force per unit area, and is usually measured in micropascals (μPa), where 1 Pa is the pressure resulting from a force of one newton exerted over an area of one square meter. SPL is expressed as the ratio of a measured sound pressure and a reference level.

SPL (in dB) = 20 log (pressure/reference pressure)

The commonly used reference pressure level in underwater acoustics is 1 μPa, and the units for SPLs are dB re: 1 μPa. SPL is an instantaneous pressure measurement and can be expressed as the peak, the peak-peak, or the root mean square (rms). Root mean square pressure, which is the square root of the arithmetic average of the squared instantaneous pressure values, is typically used in discussions of the effects of sounds on vertebrates and all references to SPL in this document refer to the root mean square. SPL does not take the duration of exposure into account. SPL is the applicable metric used in the risk continuum, which is used to estimate behavioral harassment takes (see Level B Harassment Risk Function (Behavioral Harassment) Section).

Sound exposure level (SEL)—SEL is an energy metric that integrates the squared instantaneous sound pressure over a stated time interval. The units for SEL are dB re: 1 μPa^2-s. Below is a simplified formula for SEL.

SEL = SPL + 10log(duration in seconds)

As applied to active sonar, the SEL includes both the SPL of a sonar ping and the total duration. Longer duration pings and/or pings with higher SPLs will have a higher SEL. If an animal is exposed to multiple pings, the SEL in each individual ping is summed to calculate the cumulative SEL. The cumulative SEL depends on the SPL, duration, and number of pings received. The thresholds that NMFS uses to indicate at what received level the onset of temporary threshold shift (TTS) and permanent threshold shift (PTS) in hearing are likely to occur are expressed as cumulative SEL.

Potential Effects of Specified Activities on Marine Mammals

The Navy has requested authorization for the take of marine mammals that may occur incidental to training and testing activities in the Study Area. The Navy has analyzed potential impacts to marine mammals from impulsive and non-impulsive sound sources and vessel strike.

Other potential impacts to marine mammals from training activities in the Study Area were analyzed in the Navy's HSTT DEIS/OEIS, in consultation with NMFS as a cooperating agency, and determined to be unlikely to result in marine mammal harassment. Therefore, the Navy has not requested authorization for take of marine mammals that might occur incidental to other components of their proposed activities. In this document, NMFS analyzes the potential effects on marine mammals from exposure to non-impulsive sound sources (sonar and other active acoustic sources), impulsive sound sources (underwater detonations and pile driving), and vessel strikes.

For the purpose of MMPA authorizations, NMFS' effects assessments serve four primary purposes: (1) To prescribe the permissible methods of taking (i.e., Level B harassment (behavioral harassment), Level A harassment (injury), or mortality, including an identification of the number and types of take that could occur by harassment or mortality) and to prescribe other means of effecting the least practicable adverse impact on such species or stock and its habitat (i.e., mitigation); (2) to determine whether the specified activity would have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity would adversely affect the species or stock through effects on annual rates of recruitment or survival); (3) to determine whether the specified activity would have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses; and (4) to prescribe requirements pertaining to monitoring and reporting.

More specifically, for activities involving non-impulsive or impulsive sources, NMFS' analysis will identify the probability of lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), behavioral disturbance (that rises to the level of harassment), and social responses (effects to social relationships) that would be classified as a take and whether such take would have a negligible impact on such species or stocks. Vessel strikes, which have the potential to result in incidental take from direct injury and/or mortality, will be discussed in more detail in the Estimated Take of Marine Mammals section. In this section, we will focus qualitatively on the different ways that non-impulsive and impulsive sources may affect marine mammals (some of which NMFS would not classify as harassment). Then, in the Estimated Take of Marine Mammals section, we will relate the potential effects to marine mammals from non-impulsive and impulsive sources to the MMPA definitions of Level A and Level B Harassment, along with the potential effects from vessel strikes, and attempt to quantify those effects.

Non-Impulsive Sources

Direct Physiological Effects

Based on the literature, there are two basic ways that non-impulsive sources might directly result in physical trauma or damage: Noise-induced loss of hearing sensitivity (more commonly-called ''threshold shift'') and acoustically mediated bubble growth. Separately, an animal's behavioral reaction to an acoustic exposure might lead to physiological effects that might ultimately lead to injury or death, which is discussed later in the Stranding section.

Threshold Shift (noise-induced loss of hearing)—When animals exhibit reduced hearing sensitivity (i.e., sounds must be louder for an animal to detect them) following exposure to an intense sound or sound for long duration, it is referred to as a noise-induced threshold shift (TS). An animal can experience temporary threshold shift (TTS) or permanent threshold shift (PTS). TTS can last from minutes or hours to days (i.e., there is complete recovery), can occur in specific frequency ranges (i.e., an animal might only have a temporary loss of hearing sensitivity between the frequencies of 1 and 10 kHz), and can be of varying amounts (for example, an animal's hearing sensitivity might be reduced initially by only 6 dB or reduced by 30 dB). PTS is permanent, but some recovery is possible. PTS can also occur in a specific frequency range and amount as mentioned above for TTS.

The following physiological mechanisms are thought to play a role in inducing auditory TS: Effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output (Southall *et al.,* 2007). The amplitude, duration, frequency, temporal pattern, and energy distribution of sound exposure all can affect the amount of associated TS and the frequency range in which it occurs. As amplitude and duration of sound exposure increase, so, generally, does the amount of TS, along with the recovery time. For intermittent sounds, less TS could occur than compared to a continuous exposure with the same energy (some recovery could occur between intermittent exposures depending on the duty cycle between sounds) (Kryter *et al.,* 1966; Ward, 1997). For example, one short but loud (higher SPL) sound exposure may

induce the same impairment as one longer but softer sound, which in turn may cause more impairment than a series of several intermittent softer sounds with the same total energy (Ward, 1997). Additionally, though TTS is temporary, prolonged exposure to sounds strong enough to elicit TTS, or shorter-term exposure to sound levels well above the TTS threshold, can cause PTS, at least in terrestrial mammals (Kryter, 1985). Although in the case of mid- and high-frequency active sonar (MFAS/HFAS), animals are not expected to be exposed to levels high enough or durations long enough to result in PTS.

PTS is considered auditory injury (Southall *et al.,* 2007). Irreparable damage to the inner or outer cochlear hair cells may cause PTS; however, other mechanisms are also involved, such as exceeding the elastic limits of certain tissues and membranes in the middle and inner ears and resultant changes in the chemical composition of the inner ear fluids (Southall *et al.,* 2007).

Although the published body of scientific literature contains numerous theoretical studies and discussion papers on hearing impairments that can occur with exposure to a loud sound, only a few studies provide empirical information on the levels at which noise-induced loss in hearing sensitivity occurs in nonhuman animals. For marine mammals, published data are limited to the captive bottlenose dolphin, beluga, harbor porpoise, and Yangtze finless porpoise (Finneran *et al.,* 2000, 2002b, 2003, 2005a, 2007, 2010a, 2010b; Finneran and Schlundt, 2010; Lucke *et al.,* 2009; Mooney *et al.,* 2009a, 2009b; Popov *et al.,* 2011a, 2011b; Kastelein *et al.,* 2012a; Schlundt *et al.,* 2000; Nachtigall *et al.,* 2003, 2004). For pinnipeds in water, data are limited to measurements of TTS in harbor seals, an elephant seal, and California sea lions (Kastak *et al.,* 1999, 2005; Kastelein *et al.,* 2012b).

Marine mammal hearing plays a critical role in communication with conspecifics, and interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (i.e., recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking, below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that occurs during a time where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for successful mother/calf interactions could have more serious impacts. Also, depending on the degree and frequency range, the effects of PTS on an animal could range in severity, although it is considered generally more serious because it is a permanent condition. Of note, reduced hearing sensitivity as a simple function of aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.,* 2007), so we can infer that strategies exist for coping with this condition to some degree, though likely not without cost.

Acoustically Mediated Bubble Growth—One theoretical cause of injury to marine mammals is rectified diffusion (Crum and Mao, 1996), the process of increasing the size of a bubble by exposing it to a sound field. This process could be facilitated if the environment in which the ensonified bubbles exist is supersaturated with gas. Repetitive diving by marine mammals can cause the blood and some tissues to accumulate gas to a greater degree than is supported by the surrounding environmental pressure (Ridgway and Howard, 1979). The deeper and longer dives of some marine mammals (for example, beaked whales) are theoretically predicted to induce greater supersaturation (Houser *et al.,* 2001b). If rectified diffusion were possible in marine mammals exposed to high-level sound, conditions of tissue supersaturation could theoretically speed the rate and increase the size of bubble growth. Subsequent effects due to tissue trauma and emboli would presumably mirror those observed in humans suffering from decompression sickness.

It is unlikely that the short duration of sonar pings or explosion sounds would be long enough to drive bubble growth to any substantial size, if such a phenomenon occurs. However, an alternative but related hypothesis has also been suggested: Stable bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. In such a scenario the marine mammal would need to be in a gas-supersaturated state for a long enough period of time for bubbles to become of a problematic size.

Yet another hypothesis (decompression sickness) has speculated that rapid ascent to the surface following exposure to a startling sound might produce tissue gas saturation sufficient for the evolution of nitrogen bubbles (Jepson *et al.,* 2003; Fernandez *et al.,* 2005). In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. Alternatively, Tyack *et al.* (2006) studied the deep diving behavior of beaked whales and concluded that: ''Using current models of breath-hold diving, we infer that their natural diving behavior is inconsistent with known problems of acute nitrogen supersaturation and embolism.'' Collectively, these hypotheses can be referred to as ''hypotheses of acoustically mediated bubble growth.''

Although theoretical predictions suggest the possibility for acoustically mediated bubble growth, there is considerable disagreement among scientists as to its likelihood (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Crum and Mao (1996) hypothesized that received levels would have to exceed 190 dB in order for there to be the possibility of significant bubble growth due to supersaturation of gases in the blood (i.e., rectified diffusion). More recent work conducted by Crum *et al.* (2005) demonstrated the possibility of rectified diffusion for short duration signals, but at SELs and tissue saturation levels that are highly improbable to occur in diving marine mammals. To date, energy levels (ELs) predicted to cause in vivo bubble formation within diving cetaceans have not been evaluated (NOAA, 2002b). Although it has been argued that traumas from some recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.,* 2003), there is no conclusive evidence of this. However, Jepson *et al.* (2003, 2005) and Fernandez *et al.* (2004, 2005) concluded that in vivo bubble formation, which may be exacerbated by deep, long-duration, repetitive dives may explain why beaked whales appear to be particularly vulnerable to sonar exposures. Further investigation is needed to further assess the potential validity of these hypotheses. More information regarding hypotheses that attempt to explain how behavioral responses to non-impulsive sources can lead to strandings is included in the Stranding and Mortality section.

Acoustic Masking

Marine mammals use acoustic signals for a variety of purposes, which differ among species, but include communication between individuals, navigation, foraging, reproduction, and

learning about their environment (Erbe and Farmer 2000, Tyack 2000). Masking, or auditory interference, generally occurs when sounds in the environment are louder than and of a similar frequency to, auditory signals an animal is trying to receive. Masking is a phenomenon that affects animals that are trying to receive acoustic information about their environment, including sounds from other members of their species, predators, prey, and sounds that allow them to orient in their environment. Masking these acoustic signals can disturb the behavior of individual animals, groups of animals, or entire populations.

The extent of the masking interference depends on the spectral, temporal, and spatial relationships between the signals an animal is trying to receive and the masking noise, in addition to other factors. In humans, significant masking of tonal signals occurs as a result of exposure to noise in a narrow band of similar frequencies. As the sound level increases, though, the detection of frequencies above those of the masking stimulus decreases also. This principle is expected to apply to marine mammals as well because of common biomechanical cochlear properties across taxa.

Richardson *et al.* (1995b) argued that the maximum radius of influence of an industrial noise (including broadband low frequency sound transmission) on a marine mammal is the distance from the source to the point at which the noise can barely be heard. This range is determined by either the hearing sensitivity of the animal or the background noise level present. Industrial masking is most likely to affect some species' ability to detect communication calls and natural sounds (i.e., surf noise, prey noise, etc.; Richardson *et al.,* 1995).

The echolocation calls of toothed whales are subject to masking by high frequency sound. Human data indicate low-frequency sound can mask high-frequency sounds (i.e., upward masking). Studies on captive odontocetes by Au *et al.* (1974, 1985, 1993) indicate that some species may use various processes to reduce masking effects (e.g., adjustments in echolocation call intensity or frequency as a function of background noise conditions). There is also evidence that the directional hearing abilities of odontocetes are useful in reducing masking at the high-frequencies these cetaceans use to echolocate, but not at the low-to-moderate frequencies they use to communicate (Zaitseva *et al.,*1980). A recent study by Nachtigall and Supin (2008) showed that false killer whales adjust their hearing to compensate for ambient sounds and the intensity of returning echolocation signals.

As mentioned previously, the functional hearing ranges of mysticetes, odontocetes, and pinnipeds underwater all encompass the frequencies of the sonar sources used in the Navy's MFAS/HFAS training exercises. Additionally, almost all species' vocal repertoires span across the frequencies of these sonar sources used by the Navy. The closer the characteristics of the masking signal to the signal of interest, the more likely masking is to occur. For hull-mounted sonar, which accounts for the largest takes of marine mammals (because of the source strength and number of hours it's conducted), the pulse length and low duty cycle of the MFAS/HFAS signal makes it less likely that masking would occur as a result.

Impaired Communication

In addition to making it more difficult for animals to perceive acoustic cues in their environment, anthropogenic sound presents separate challenges for animals that are vocalizing. When they vocalize, animals are aware of environmental conditions that affect the ''active space'' of their vocalizations, which is the maximum area within which their vocalizations can be detected before it drops to the level of ambient noise (Brenowitz, 2004; Brumm *et al.,* 2004; Lohr *et al.,* 2003). Animals are also aware of environmental conditions that affect whether listeners can discriminate and recognize their vocalizations from other sounds, which is more important than simply detecting that a vocalization is occurring (Brenowitz, 1982; Brumm *et al.,* 2004; Dooling, 2004, Marten and Marler, 1977; Patricelli *et al.,* 2006). Most animals that vocalize have evolved with an ability to make adjustments to their vocalizations to increase the signal-to-noise ratio, active space, and recognizability/distinguishability of their vocalizations in the face of temporary changes in background noise (Brumm *et al.,* 2004; Patricelli *et al.,* 2006). Vocalizing animals can make adjustments to vocalization characteristics such as the frequency structure, amplitude, temporal structure, and temporal delivery.

Many animals will combine several of these strategies to compensate for high levels of background noise. Anthropogenic sounds that reduce the signal-to-noise ratio of animal vocalizations, increase the masked auditory thresholds of animals listening for such vocalizations, or reduce the active space of an animal's vocalizations impair communication between animals. Most animals that vocalize have evolved strategies to compensate for the effects of short-term or temporary increases in background or ambient noise on their songs or calls. Although the fitness consequences of these vocal adjustments remain unknown, like most other trade-offs animals must make, some of these strategies probably come at a cost (Patricelli *et al.,* 2006). For example, vocalizing more loudly in noisy environments may have energetic costs that decrease the net benefits of vocal adjustment and alter a bird's energy budget (Brumm, 2004; Wood and Yezerinac, 2006). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996).

Stress Responses

Classic stress responses begin when an animal's central nervous system perceives a potential threat to its homeostasis. That perception triggers stress responses regardless of whether a stimulus actually threatens the animal; the mere perception of a threat is sufficient to trigger a stress response (Moberg, 2000; Sapolsky *et al.,* 2005; Seyle, 1950). Once an animal's central nervous system perceives a threat, it mounts a biological response or defense that consists of a combination of the four general biological defense responses: Behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune responses.

In the case of many stressors, an animal's first and sometimes most economical (in terms of biotic costs) response is behavioral avoidance of the potential stressor or avoidance of continued exposure to a stressor. An animal's second line of defense to stressors involves the sympathetic part of the autonomic nervous system and the classical ''fight or flight'' response which includes the cardiovascular system, the gastrointestinal system, the exocrine glands, and the adrenal medulla to produce changes in heart rate, blood pressure, and gastrointestinal activity that humans commonly associate with ''stress.'' These responses have a relatively short duration and may or may not have significant long-term effect on an animal's welfare.

An animal's third line of defense to stressors involves its neuroendocrine systems; the system that has received the most study has been the hypothalmus-pituitary-adrenal system (also known as the HPA axis in mammals or the hypothalamus-pituitary-interrenal axis in fish and some reptiles). Unlike stress responses associated with the autonomic nervous

system, virtually all neuro-endocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction (Moberg, 1987; Rivier, 1995), altered metabolism (Elasser *et al.,* 2000), reduced immune competence (Blecha, 2000), and behavioral disturbance. Increases in the circulation of glucocorticosteroids (cortisol, corticosterone, and aldosterone in marine mammals; see Romano *et al.,* 2004) have been equated with stress for many years.

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and distress is the biotic cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose a risk to the animal's welfare. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other biotic function, which impairs those functions that experience the diversion. For example, when mounting a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When mounting a stress response diverts energy from a fetus, an animal's reproductive success and its fitness will suffer. In these cases, the animals will have entered a pre-pathological or pathological state which is called ''distress'' (sensu Seyle 1950) or ''allostatic loading'' (sensu McEwen and Wingfield, 2003). This pathological state will last until the animal replenishes its biotic reserves sufficient to restore normal function. Note that these examples involved a long-term (days or weeks) stress response exposure to stimuli.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses have also been documented fairly well through controlled experiments; because this physiology exists in every vertebrate that has been studied, it is not surprising that stress responses and their costs have been documented in both laboratory and free-living animals (for examples see, Holberton *et al.,* 1996; Hood *et al.,* 1998; Jessop *et al.,* 2003; Krausman *et al.,* 2004; Lankford *et al.,* 2005; Reneerkens *et al.,* 2002; Thompson and Hamer, 2000). Information has also been collected on the physiological responses of marine mammals to exposure to anthropogenic sounds (Fair and Becker, 2000; Romano *et al.,* 2002; Wright *et al.,* 2008). For example, Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales. In a conceptual model developed by the Population Consequences of Acoustic Disturbance (PCAD) working group, serum hormones were identified as possible indicators of behavioral effects that are translated into altered rates of reproduction and mortality. The Office of Naval Research hosted a workshop (Effects of Stress on Marine Mammals Exposed to Sound) in 2009 that focused on this very topic (ONR, 2009).

Studies of other marine animals and terrestrial animals would also lead us to expect some marine mammals to experience physiological stress responses and, perhaps, physiological responses that would be classified as ''distress'' upon exposure to high frequency, mid-frequency and low-frequency sounds. For example, Jansen (1998) reported on the relationship between acoustic exposures and physiological responses that are indicative of stress responses in humans (for example, elevated respiration and increased heart rates). Jones (1998) reported on reductions in human performance when faced with acute, repetitive exposures to acoustic disturbance. Trimper *et al.* (1998) reported on the physiological stress responses of osprey to low-level aircraft noise while Krausman *et al.* (2004) reported on the auditory and physiology stress responses of endangered Sonoran pronghorn to military overflights. Smith *et al.* (2004a, 2004b), for example, identified noise-induced physiological transient stress responses in hearing-specialist fish (i.e., goldfish) that accompanied short- and long-term hearing losses. Welch and Welch (1970) reported physiological and behavioral stress responses that accompanied damage to the inner ears of fish and several mammals.

Hearing is one of the primary senses marine mammals use to gather information about their environment and to communicate with conspecifics. Although empirical information on the relationship between sensory impairment (TTS, PTS, and acoustic masking) on marine mammals remains limited, it seems reasonable to assume that reducing an animal's ability to gather information about its environment and to communicate with other members of its species would be stressful for animals that use hearing as their primary sensory mechanism. Therefore, we assume that acoustic exposures sufficient to trigger onset PTS or TTS would be accompanied by physiological stress responses because terrestrial animals exhibit those responses under similar conditions (NRC, 2003). More importantly, marine mammals might experience stress responses at received levels lower than those necessary to trigger onset TTS. Based on empirical studies of the time required to recover from stress responses (Moberg, 2000), we also assume that stress responses are likely to persist beyond the time interval required for animals to recover from TTS and might result in pathological and pre-pathological states that would be as significant as behavioral responses to TTS.

Behavioral Disturbance

Behavioral responses to sound are highly variable and context-specific. Many different variables can influence an animal's perception of and response to (nature and magnitude) an acoustic event. An animal's prior experience with a sound or sound source effects whether it is less likely (habituation) or more likely (sensitization) to respond to certain sounds in the future (animals can also be innately pre-disposed to respond to certain sounds in certain ways) (Southall *et al.,* 2007). Related to the sound itself, the perceived nearness of the sound, bearing of the sound (approaching vs. retreating), similarity of a sound to biologically relevant sounds in the animal's environment (i.e., calls of predators, prey, or conspecifics), and familiarity of the sound may affect the way an animal responds to the sound (Southall *et al.,* 2007). Individuals (of different age, gender, reproductive status, etc.) among most populations will have variable hearing capabilities, and differing behavioral sensitivities to sounds that will be affected by prior conditioning, experience, and current activities of those individuals. Often, specific acoustic features of the sound and contextual variables (i.e., proximity, duration, or recurrence of the sound or the current behavior that the marine mammal is engaged in or its prior experience), as well as entirely separate factors such as the physical presence of a nearby vessel, may be more relevant to the animal's response than the received level alone.

Exposure of marine mammals to sound sources can result in no response or responses including, but not limited to: increased alertness; orientation or attraction to a sound source; vocal modifications; cessation of feeding;

cessation of social interaction; alteration of movement or diving behavior; habitat abandonment (temporary or permanent); and, in severe cases, panic, flight, stampede, or stranding, potentially resulting in death (Southall *et al.,* 2007). A review of marine mammal responses to anthropogenic sound was first conducted by Richardson and others in 1995. A more recent review (Nowacek *et al.,* 2007) addresses studies conducted since 1995 and focuses on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated. The following sub-sections provide examples of behavioral responses that provide an idea of the variability in behavioral responses that would be expected given the differential sensitivities of marine mammal species to sound and the wide range of potential acoustic sources to which a marine mammal may be exposed. Estimates of the types of behavioral responses that could occur for a given sound exposure should be determined from the literature that is available for each species, or extrapolated from closely related species when no information exists.

Flight Response—A flight response is a dramatic change in normal movement to a directed and rapid movement away from the perceived location of a sound source. Relatively little information on flight responses of marine mammals to anthropogenic signals exist, although observations of flight responses to the presence of predators have occurred (Connor and Heithaus, 1996). Flight responses have been speculated as being a component of marine mammal strandings associated with sonar activities (Evans and England, 2001).

Response to Predator—Evidence suggests that at least some marine mammals have the ability to acoustically identify potential predators. For example, harbor seals that reside in the coastal waters off British Columbia are frequently targeted by certain groups of killer whales, but not others. The seals discriminate between the calls of threatening and non-threatening killer whales (Deecke *et al.,* 2002), a capability that should increase survivorship while reducing the energy required for attending to and responding to all killer whale calls. The occurrence of masking or hearing impairment provides a means by which marine mammals may be prevented from responding to the acoustic cues produced by their predators. Whether or not this is a possibility depends on the duration of the masking/hearing impairment and the likelihood of encountering a predator during the time that predator cues are impeded.

Diving—Changes in dive behavior can vary widely. They may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive. Variations in dive behavior may reflect interruptions in biologically significant activities (e.g., foraging) or they may be of little biological significance. Variations in dive behavior may also expose an animal to potentially harmful conditions (e.g., increasing the chance of ship-strike) or may serve as an avoidance response that enhances survivorship. The impact of a variation in diving resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure and the type and magnitude of the response.

Nowacek *et al.* (2004) reported disruptions of dive behaviors in foraging North Atlantic right whales when exposed to an alerting stimulus, an action, they noted, that could lead to an increased likelihood of ship strike. However, the whales did not respond to playbacks of either right whale social sounds or vessel noise, highlighting the importance of the sound characteristics in producing a behavioral reaction. Conversely, Indo-Pacific humpback dolphins have been observed to dive for longer periods of time in areas where vessels were present and/or approaching (Ng and Leung, 2003). In both of these studies, the influence of the sound exposure cannot be decoupled from the physical presence of a surface vessel, thus complicating interpretations of the relative contribution of each stimulus to the response. Indeed, the presence of surface vessels, their approach, and speed of approach, seemed to be significant factors in the response of the Indo-Pacific humpback dolphins (Ng and Leung, 2003). Low frequency signals of the Acoustic Thermometry of Ocean Climate (ATOC) sound source were not found to affect dive times of humpback whales in Hawaiian waters (Frankel and Clark, 2000) or to overtly affect elephant seal dives (Costa *et al.,* 2003). They did, however, produce subtle effects that varied in direction and degree among the individual seals, illustrating the equivocal nature of behavioral effects and consequent difficulty in defining and predicting them.

Due to past incidents of beaked whale strandings associated with sonar operations, feedback paths are provided between avoidance and diving and indirect tissue effects. This feedback accounts for the hypothesis that variations in diving behavior and/or avoidance responses can possibly result in nitrogen tissue supersaturation and nitrogen off-gassing, possibly to the point of deleterious vascular bubble formation (Jepson *et al.,* 2003). Although hypothetical, discussions surrounding this potential process are controversial.

Foraging—Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (e.g., bubble nets or sediment plumes), or changes in dive behavior. Noise from seismic surveys was not found to impact the feeding behavior in western grey whales off the coast of Russia (Yazvenko *et al.,* 2007) and sperm whales engaged in foraging dives did not abandon dives when exposed to distant signatures of seismic airguns (Madsen *et al.,* 2006). Balaenopterid whales exposed to moderate low-frequency signals similar to the ATOC sound source demonstrated no variation in foraging activity (Croll *et al.,* 2001), whereas five out of six North Atlantic right whales exposed to an acoustic alarm interrupted their foraging dives (Nowacek *et al.,* 2004). Although the received sound pressure levels were similar in the latter two studies, the frequency, duration, and temporal pattern of signal presentation were different. These factors, as well as differences in species sensitivity, are likely contributing factors to the differential response. A determination of whether foraging disruptions incur fitness consequences will require information on or estimates of the energetic requirements of the individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Breathing—Variations in respiration naturally vary with different behaviors and variations in respiration rate as a function of acoustic exposure can be expected to co-occur with other behavioral reactions, such as a flight response or an alteration in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Mean exhalation rates of gray whales at rest and while diving were found to be unaffected by seismic surveys conducted adjacent to the whale feeding grounds (Gailey *et al.,* 2007). Studies with captive harbor porpoises showed increased respiration rates upon introduction of acoustic alarms (Kastelein *et al.,* 2001; Kastelein *et al.,* 2006a) and emissions for underwater data transmission (Kastelein *et al.,* 2005). However, exposure of the same

acoustic alarm to a striped dolphin under the same conditions did not elicit a response (Kastelein *et al.,* 2006a), again highlighting the importance in understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure.

Social relationships—Social interactions between mammals can be affected by noise via the disruption of communication signals or by the displacement of individuals. Disruption of social relationships therefore depends on the disruption of other behaviors (e.g., caused avoidance, masking, etc.) and no specific overview is provided here. However, social disruptions must be considered in context of the relationships that are affected. Long-term disruptions of mother/calf pairs or mating displays have the potential to affect the growth and survival or reproductive effort/success of individuals, respectively.

Vocalizations (also see Masking Section)—Vocal changes in response to anthropogenic noise can occur across the repertoire of sound production modes used by marine mammals, such as whistling, echolocation click production, calling, and singing. Changes may result in response to a need to compete with an increase in background noise or may reflect an increased vigilance or startle response. For example, in the presence of low-frequency active sonar, humpback whales have been observed to increase the length of their ''songs'' (Miller *et al.,* 2000; Fristrup *et al.,* 2003), possibly due to the overlap in frequencies between the whale song and the low-frequency active sonar. A similar compensatory effect for the presence of low-frequency vessel noise has been suggested for right whales; right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.,* 2007). Killer whales off the northwestern coast of the U.S. have been observed to increase the duration of primary calls once a threshold in observing vessel density (e.g., whale watching) was reached, which has been suggested as a response to increased masking noise produced by the vessels (Foote *et al.,* 2004). In contrast, both sperm and pilot whales potentially ceased sound production during the Heard Island feasibility test (Bowles *et al.,* 1994), although it cannot be absolutely determined whether the inability to acoustically detect the animals was due to the cessation of sound production or the displacement of animals from the area.

Avoidance—Avoidance is the displacement of an individual from an area as a result of the presence of a sound. Richardson *et al.,* (1995) noted that avoidance reactions are the most obvious manifestations of disturbance in marine mammals. It is qualitatively different from the flight response, but also differs in the magnitude of the response (i.e., directed movement, rate of travel, etc.). Oftentimes avoidance is temporary, and animals return to the area once the noise has ceased. Longer term displacement is possible, however, which can lead to changes in abundance or distribution patterns of the species in the affected region if they do not become acclimated to the presence of the sound (Blackwell *et al.,* 2004; Bejder *et al.,* 2006; Teilmann *et al.,* 2006). Acute avoidance responses have been observed in captive porpoises and pinnipeds exposed to a number of different sound sources (Kastelein *et al.,* 2001; Finneran *et al.,* 2003; Kastelein *et al.,* 2006a; Kastelein *et al.,* 2006b). Short-term avoidance of seismic surveys, low frequency emissions, and acoustic deterrents have also been noted in wild populations of odontocetes (Bowles *et al.,* 1994; Goold, 1996; 1998; Stone *et al.,* 2000; Morton and Symonds, 2002) and to some extent in mysticetes (Gailey *et al.,* 2007), while longer term or repetitive/chronic displacement for some dolphin groups and for manatees has been suggested to be due to the presence of chronic vessel noise (Haviland-Howell *et al.,* 2007; Miksis-Olds *et al.,* 2007).

Maybaum (1993) conducted sound playback experiments to assess the effects of MFAS on humpback whales in Hawaiian waters. Specifically, she exposed focal pods to sounds of a 3.3-kHz sonar pulse, a sonar frequency sweep from 3.1 to 3.6 kHz, and a control (blank) tape while monitoring behavior, movement, and underwater vocalizations. The two types of sonar signals (which both contained mid- and low-frequency components) differed in their effects on the humpback whales, but both resulted in avoidance behavior. The whales responded to the pulse by increasing their distance from the sound source and responded to the frequency sweep by increasing their swimming speeds and track linearity. In the Caribbean, sperm whales avoided exposure to mid-frequency submarine sonar pulses, in the range of 1000 Hz to 10,000 Hz (IWC 2005).

Kvadsheim *et al.,* (2007) conducted a controlled exposure experiment in which killer whales fitted with D-tags were exposed to mid-frequency active sonar (Source A: a 1.0 second upsweep 209 dB @ 1–2 kHz every 10 seconds for 10 minutes; Source B: with a 1.0 second upsweep 197 dB @ 6–7 kHz every 10 seconds for 10 minutes). When exposed to Source A, a tagged whale and the group it was traveling with did not appear to avoid the source. When exposed to Source B, the tagged whales along with other whales that had been carousel feeding, ceased feeding during the approach of the sonar and moved rapidly away from the source. When exposed to Source B, Kvadsheim and his co-workers reported that a tagged killer whale seemed to try to avoid further exposure to the sound field by the following behaviors: immediately swimming away (horizontally) from the source of the sound; engaging in a series of erratic and frequently deep dives that seemed to take it below the sound field; or swimming away while engaged in a series of erratic and frequently deep dives. Although the sample sizes in this study are too small to support statistical analysis, the behavioral responses of the orcas were consistent with the results of other studies.

In 2007, the first in a series of behavioral response studies, a collaboration by the Navy, NMFS, and other scientists showed one beaked whale (*Mesoplodon densirostris*) responding to an MFAS playback. Tyack *et al.* (2011) indicates that the playback began when the tagged beaked whale was vocalizing at depth (at the deepest part of a typical feeding dive), following a previous control with no sound exposure. The whale appeared to stop clicking significantly earlier than usual, when exposed to mid-frequency signals in the 130–140 dB (rms) received level range. After a few more minutes of the playback, when the received level reached a maximum of 140–150 dB, the whale ascended on the slow side of normal ascent rates with a longer than normal ascent, at which point the exposure was terminated. The results are from a single experiment and a greater sample size is needed before robust and definitive conclusions can be drawn.

Tyack *et al.* (2011) also indicates that Blainville's beaked whales—a resident species within the study area—appear to be sensitive to noise at levels well below expected TTS (~160 dB re1μPa). This sensitivity is manifest by an adaptive movement away from a sound source. This response was observed irrespective of whether the signal transmitted was within the band width of MFAS, which suggests that beaked whales may not respond to the specific sound signatures. Instead, they may be sensitive to any pulsed sound from a

point source in this frequency range. The response to such stimuli appears to involve maximizing the distance from the sound source.

Results from a 2007–2008 study conducted near the Bahamas showed a change in diving behavior of an adult Blainville's beaked whale to playback of mid-frequency source and predator sounds (Boyd *et al.,* 2008; Tyack *et al.,* 2011). Reaction to mid-frequency sounds included premature cessation of clicking and termination of a foraging dive, and a slower ascent rate to the surface. Preliminary results from a similar behavioral response study in southern California waters have been presented for the 2010–2011 field season (Southall *et al.,* 2011). Cuvier's beaked whale responses suggested particular sensitivity to sound exposure as consistent with results for Blainville's beaked whale. Similarly, beaked whales exposed to sonar during British training exercises stopped foraging (DSTL 2007), and preliminary results of controlled playback of sonar may indicate feeding/foraging disruption of killer whales and sperm whales (Miller *et al.,* 2011).

Orientation—A shift in an animal's resting state or an attentional change via an orienting response represent behaviors that would be considered mild disruptions if occurring alone. As previously mentioned, the responses may co-occur with other behaviors; for instance, an animal may initially orient toward a sound source, and then move away from it. Thus, any orienting response should be considered in context of other reactions that may occur.

There are few empirical studies of avoidance responses of free-living cetaceans to MFAS. Much more information is available on the avoidance responses of free-living cetaceans to other acoustic sources, such as seismic airguns and low-frequency tactical sonar, than MFAS.

Behavioral Responses

Southall *et al.* (2007) reports the results of the efforts of a panel of experts in acoustic research from behavioral, physiological, and physical disciplines that convened and reviewed the available literature on marine mammal hearing and physiological and behavioral responses to human-made sound with the goal of proposing exposure criteria for certain effects. This peer-reviewed compilation of literature is very valuable, though Southall *et al.* (2007) note that not all data are equal, some have poor statistical power, insufficient controls, and/or limited information on received levels, background noise, and other potentially important contextual variables—such data were reviewed and sometimes used for qualitative illustration but were not included in the quantitative analysis for the criteria recommendations. All of the studies considered, however, contain an estimate of the received sound level when the animal exhibited the indicated response.

In the Southall *et al.* (2007) publication, for the purposes of analyzing responses of marine mammals to anthropogenic sound and developing criteria, the authors differentiate between single pulse sounds, multiple pulse sounds, and non-pulse sounds. MFAS/HFAS sonar is considered a non-pulse sound. Southall *et al.* (2007) summarize the studies associated with low-frequency, mid-frequency, and high-frequency cetacean and pinniped responses to non-pulse sounds, based strictly on received level, in Appendix C of their article (incorporated by reference and summarized in the three paragraphs below).

The studies that address responses of low-frequency cetaceans to non-pulse sounds include data gathered in the field and related to several types of sound sources (of varying similarity to MFAS/HFAS) including: vessel noise, drilling and machinery playback, low-frequency M-sequences (sine wave with multiple phase reversals) playback, tactical low-frequency active sonar playback, drill ships, Acoustic Thermometry of Ocean Climate (ATOC) source, and non-pulse playbacks. These studies generally indicate no (or very limited) responses to received levels in the 90 to 120 dB re: 1 μPa range and an increasing likelihood of avoidance and other behavioral effects in the 120 to 160 dB range. As mentioned earlier, though, contextual variables play a very important role in the reported responses and the severity of effects are not linear when compared to received level. Also, few of the laboratory or field datasets had common conditions, behavioral contexts or sound sources, so it is not surprising that responses differ.

The studies that address responses of mid-frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: pingers, drilling playbacks, ship and ice-breaking noise, vessel noise, Acoustic Harassment Devices (AHDs), Acoustic Deterrent Devices (ADDs), MFAS, and non-pulse bands and tones. Southall *et al.* (2007) were unable to come to a clear conclusion regarding the results of these studies. In some cases, animals in the field showed significant responses to received levels between 90 and 120 dB, while in other cases these responses were not seen in the 120 to 150 dB range. The disparity in results was likely due to contextual variation and the differences between the results in the field and laboratory data (animals typically responded at lower levels in the field).

The studies that address responses of high frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: pingers, AHDs, and various laboratory non-pulse sounds. All of these data were collected from harbor porpoises. Southall *et al.* (2007) concluded that the existing data indicate that harbor porpoises are likely sensitive to a wide range of anthropogenic sounds at low received levels (~ 90 to 120 dB), at least for initial exposures. All recorded exposures above 140 dB induced profound and sustained avoidance behavior in wild harbor porpoises (Southall *et al.,* 2007). Rapid habituation was noted in some but not all studies. There is no data to indicate whether other high frequency cetaceans are as sensitive to anthropogenic sound as harbor porpoises are.

The studies that address the responses of pinnipeds in water to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: AHDs, ATOC, various non-pulse sounds used in underwater data communication; underwater drilling, and construction noise. Few studies exist with enough information to include them in the analysis. The limited data suggested that exposures to non-pulse sounds between 90 and 140 dB generally do not result in strong behavioral responses in pinnipeds in water, but no data exist at higher received levels.

In addition to summarizing the available data, the authors of Southall *et al.* (2007) developed a severity scaling system with the intent of ultimately being able to assign some level of biological significance to a response. Following is a summary of their scoring system; a comprehensive list of the behaviors associated with each score, along with the assigned scores, may be found in the report:

- 0–3 (Minor and/or brief behaviors) includes, but is not limited to: no response; minor changes in speed or locomotion (but with no avoidance); individual alert behavior; minor cessation in vocal behavior; minor

changes in response to trained behaviors (in laboratory)

- 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival) includes, but is not limited to: moderate changes in speed, direction, or dive profile; brief shift in group distribution; prolonged cessation or modification of vocal behavior (duration > duration of sound), minor or moderate individual and/or group avoidance of sound; brief cessation of reproductive behavior; or refusal to initiate trained tasks (in laboratory)
- 7–9 (Behaviors considered likely to affect the aforementioned vital rates) includes, but is not limited to: extensive or prolonged aggressive behavior; moderate, prolonged or significant separation of females and dependent offspring with disruption of acoustic reunion mechanisms; long-term avoidance of an area; outright panic, stampede, stranding; threatening or attacking sound source (in laboratory)

Potential Effects of Behavioral Disturbance

The different ways that marine mammals respond to sound are sometimes indicators of the ultimate effect that exposure to a given stimulus will have on the well-being (survival, reproduction, etc.) of an animal. There is little marine mammal data quantitatively relating the exposure of marine mammals to sound to effects on reproduction or survival, though data exists for terrestrial species to which we can draw comparisons for marine mammals.

Attention is the cognitive process of selectively concentrating on one aspect of an animal's environment while ignoring other things (Posner, 1994). Because animals (including humans) have limited cognitive resources, there is a limit to how much sensory information they can process at any time. The phenomenon called ''attentional capture'' occurs when a stimulus (usually a stimulus that an animal is not concentrating on or attending to) ''captures'' an animal's attention. This shift in attention can occur consciously or subconsciously (for example, when an animal hears sounds that it associates with the approach of a predator) and the shift in attention can be sudden (Dukas, 2002; van Rij, 2007). Once a stimulus has captured an animal's attention, the animal can respond by ignoring the stimulus, assuming a ''watch and wait'' posture, or treat the stimulus as a disturbance and respond accordingly, which includes scanning for the source of the stimulus or ''vigilance'' (Cowlishaw *et al.,* 2004).

Vigilance is normally an adaptive behavior that helps animals determine the presence or absence of predators, assess their distance from conspecifics, or to attend cues from prey (Bednekoff and Lima, 1998; Treves, 2000). Despite those benefits, however, vigilance has a cost of time; when animals focus their attention on specific environmental cues, they are not attending to other activities such as foraging. These costs have been documented best in foraging animals, where vigilance has been shown to substantially reduce feeding rates (Saino, 1994; Beauchamp and Livoreil, 1997; Fritz *et al.,* 2002). Animals will spend more time being vigilant, which may translate to less time foraging or resting, when disturbance stimuli approach them more directly, remain at closer distances, have a greater group size (for example, multiple surface vessels), or when they co-occur with times that an animal perceives increased risk (for example, when they are giving birth or accompanied by a calf). Most of the published literature, however, suggests that direct approaches will increase the amount of time animals will dedicate to being vigilant. For example, bighorn sheep and Dall's sheep dedicated more time being vigilant, and less time resting or foraging, when aircraft made direct approaches over them (Frid, 2001; Stockwell *et al.,* 1991).

Several authors have established that long-term and intense disturbance stimuli can cause population declines by reducing the body condition of individuals that have been disturbed, followed by reduced reproductive success, reduced survival, or both (Daan *et al.,* 1996; Madsen, 1994; White, 1983). For example, Madsen (1994) reported that pink-footed geese in undisturbed habitat gained body mass and had about a 46-percent reproductive success rate compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and had a 17-percent reproductive success rate. Similar reductions in reproductive success have been reported for mule deer disturbed by all-terrain vehicles (Yarmoloy *et al.,* 1988), caribou disturbed by seismic exploration blasts (Bradshaw *et al.,* 1998), caribou disturbed by low-elevation military jet-fights (Luick *et al.,* 1996), and caribou disturbed by low-elevation jet flights (Harrington and Veitch, 1992). Similarly, a study of elk that were disturbed experimentally by pedestrians concluded that the ratio of young to mothers was inversely related to disturbance rate (Phillips and Alldredge, 2000).

The primary mechanism by which increased vigilance and disturbance appear to affect the fitness of individual animals is by disrupting an animal's time budget and, as a result, reducing the time they might spend foraging and resting (which increases an animal's activity rate and energy demand). For example, a study of grizzly bears reported that bears disturbed by hikers reduced their energy intake by an average of 12 kcal/minute (50.2×10^3kJ/minute), and spent energy fleeing or acting aggressively toward hikers (White *et al.* 1999). Alternately, Ridgway *et al.,* (2006) reported that increased vigilance in bottlenose dolphins exposed to sound over a 5-day period did not cause any sleep deprivation or stress effects such as changes in cortisol or epinephrine levels.

On a related note, many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hour cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.,* 2007). Consequently, a behavioral response lasting less than 1 day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007).

In response to the National Research Council of the National Academies (2005) review, the Office of Naval Research founded a working group to formalize the Population Consequences of Acoustic Disturbance (PCAD) framework. The PCAD model connects observable data through a series of transfer functions using a case study approach. The long-term goal is to improve the understanding of how effects of sound on marine mammals transfer between behavior and life functions and between life functions and vital rates of individuals. Then, this understanding of how disturbance can affect the vital rates of individuals will facilitate the further assessment of the population level effects of anthropogenic sound on marine mammals by providing a quantitative approach to evaluate effects and the relationship between takes and possible changes to adult survival and/or annual recruitment.

Stranding and Mortality

When a live or dead marine mammal swims or floats onto shore and becomes

''beached'' or incapable of returning to sea, the event is termed a ''stranding'' (Geraci *et al.,* 1999; Perrin and Geraci, 2002; Geraci and Lounsbury, 2005; NMFS, 2007). The legal definition for a stranding within the U.S. is that (A) ''a marine mammal is dead and is (i) on a beach or shore of the United States; or (ii) in waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is (i) on a beach or shore of the United States and unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.'' (16 U.S.C. 1421h).

Marine mammals are known to strand for a variety of reasons, such as infectious agents, biotoxicosis, starvation, fishery interaction, ship strike, unusual oceanographic or weather events, sound exposure, or combinations of these stressors sustained concurrently or in series. However, the cause or causes of most strandings are unknown (Geraci *et al.,* 1976; Eaton, 1979; Odell *et al.,* 1980; Best, 1982). Numerous studies suggest that the physiology, behavior, habitat relationships, age, or condition of cetaceans may cause them to strand or might predispose them to strand when exposed to another phenomenon. These suggestions are consistent with the conclusions of numerous other studies that have demonstrated that combinations of dissimilar stressors commonly combine to kill an animal or dramatically reduce its fitness, even though one exposure without the other does not produce the same result (Chroussos, 2000; Creel, 2005; DeVries *et al.,* 2003; Fair and Becker, 2000; Foley *et al.,* 2001; Moberg, 2000; Relyea, 2005a, 2005b; Romero, 2004; Sih *et al.,* 2004). For reference, between 2001 and 2009, there was an annual average of 1,400 cetacean strandings and 4,300 pinniped strandings along the coasts of the continental U.S. and Alaska (NMFS, 2011).

Several sources have published lists of mass stranding events of cetaceans in an attempt to identify relationships between those stranding events and military sonar (Hildebrand, 2004; IWC, 2005; Taylor *et al.,* 2004). For example, based on a review of stranding records between 1960 and 1995, the International Whaling Commission (2005) identified ten mass stranding events of Cuvier's beaked whales had been reported and one mass stranding of four Baird's beaked whale. The IWC concluded that, out of eight stranding events reported from the mid-1980s to the summer of 2003, seven had been coincident with the use of tactical mid-frequency sonar, one of those seven had been associated with the use of tactical low-frequency sonar, and the remaining stranding event had been associated with the use of seismic airguns.

Most of the stranding events reviewed by the International Whaling Commission involved beaked whales. A mass stranding of Cuvier's beaked whales in the eastern Mediterranean Sea occurred in 1996 (Frantzis, 1998) and mass stranding events involving Gervais' beaked whales, Blainville's beaked whales, and Cuvier's beaked whales occurred off the coast of the Canary Islands in the late 1980s (Simmonds and Lopez-Jurado, 1991). The stranding events that occurred in the Canary Islands and Kyparissiakos Gulf in the late 1990s and the Bahamas in 2000 have been the most intensively-studied mass stranding events and have been associated with naval maneuvers involving the use of tactical sonar.

Between 1960 and 2006, 48 strandings (68 percent) involved beaked whales, three (4 percent) involved dolphins, and 14 (20 percent) involved whale species. Cuvier's beaked whales were involved in the greatest number of these events (48 or 68 percent), followed by sperm whales (seven or 10 percent), and Blainville's and Gervais' beaked whales (four each or 6 percent). Naval activities (not just activities conducted by the U.S. Navy) that might have involved active sonar are reported to have coincided with nine or 10 (13 to 14 percent) of those stranding events. Between the mid-1980s and 2003 (the period reported by the International Whaling Commission), we identified reports of 44 mass cetacean stranding events of which at least seven were coincident with naval exercises that were using MFAS.

Strandings Associated With Impulse Sound

During a Navy training event on March 4, 2011 at the Silver Strand Training Complex in San Diego, California, three or possibly four dolphins were killed in an explosion. During an underwater detonation training event, a pod of 100 to 150 long-beaked common dolphins were observed moving toward the 700-yd (640.1-m) exclusion zone around the explosive charge, monitored by personnel in a safety boat and participants in a dive boat. Approximately 5 minutes remained on a time-delay fuse connected to a single 8.76 lb (3.97 kg) explosive charge (C–4 and detonation cord). Although the dive boat was placed between the pod and the explosive in an effort to guide the dolphins away from the area, that effort was unsuccessful and three long-beaked common dolphins near the explosion died. In addition to the three dolphins found dead on March 4, the remains of a fourth dolphin were discovered on March 7, 2011 near Ocean Beach, California (3 days later and approximately 11.8 mi. [19 km] from Silver Strand where the training event occurred), which might also have been related to this event. Association of the fourth stranding with the training event is uncertain because dolphins strand on a regular basis in the San Diego area. Details such as the dolphins' depth and distance from the explosive at the time of the detonation could not be estimated from the 250 yd (228.6 m) standoff point of the observers in the dive boat or the safety boat.

These dolphin mortalities are the only known occurrence of a U.S. Navy training or testing event involving impulse energy (underwater detonation) that caused mortality or injury to a marine mammal. Despite this being a rare occurrence, the Navy has reviewed training requirements, safety procedures, and possible mitigation measures and implemented changes to reduce the potential for this to occur in the future. Discussions of procedures associated with these and other training and testing events are presented in the Mitigation section.

Strandings Associated With MFAS

Over the past 16 years, there have been five stranding events coincident with military mid-frequency sonar use in which exposure to sonar is believed to have been a contributing factor: Greece (1996); the Bahamas (2000); Madeira (2000); Canary Islands (2002); and Spain (2006). Additionally, in 2004, during the Rim of the Pacific (RIMPAC) exercises, between 150 and 200 usually pelagic melon-headed whales occupied the shallow waters of Hanalei Bay, Kauai, Hawaii for over 28 hours. NMFS determined that MFAS was a plausible, if not likely, contributing factor in what may have been a confluence of events that led to the stranding. A number of other stranding events coincident with the operation of mid-frequency sonar, including the death of beaked whales or other species (minke whales, dwarf sperm whales, pilot whales), have been reported; however, the majority have not been investigated to the degree necessary to determine the cause of the stranding and only one of these stranding events, the Bahamas (2000),

was associated with exercises conducted by the U.S. Navy.

Greece (1996)—Twelve Cuvier's beaked whales stranded atypically (in both time and space) along a 38.2-km strand of the Kyparissiakos Gulf coast on May 12 and 13, 1996 (Frantzis, 1998). From May 11 through May 15, the North Atlantic Treaty Organization (NATO) research vessel *Alliance* was conducting sonar tests with signals of 600 Hz and 3 kHz and source levels of 228 and 226 dB re: 1μPa, respectively (D'Amico and Verboom, 1998; D'Spain *et al.,* 2006). The timing and location of the testing encompassed the time and location of the strandings (Frantzis, 1998).

Necropsies of eight of the animals were performed but were limited to basic external examination and sampling of stomach contents, blood, and skin. No ears or organs were collected, and no histological samples were preserved. No apparent abnormalities or wounds were found. Examination of photos of the animals, taken soon after their death, revealed that the eyes of at least four of the individuals were bleeding. Photos were taken soon after their death (Frantzis, 2004). Stomach contents contained the flesh of cephalopods, indicating that feeding had recently taken place (Frantzis, 1998).

All available information regarding the conditions associated with this stranding event were compiled, and many potential causes were examined including major pollution events, prominent tectonic activity, unusual physical or meteorological events, magnetic anomalies, epizootics, and conventional military activities (International Council for the Exploration of the Sea, 2005a). However, none of these potential causes coincided in time or space with the mass stranding, or could explain its characteristics (International Council for the Exploration of the Sea, 2005a). The robust condition of the animals, plus the recent stomach contents, is inconsistent with pathogenic causes. In addition, environmental causes can be ruled out as there were no unusual environmental circumstances or events before or during this time period and within the general proximity (Frantzis, 2004).

Because of the rarity of this mass stranding of Cuvier's beaked whales in the Kyparissiakos Gulf (first one in history), the probability for the two events (the military exercises and the strandings) to coincide in time and location, while being independent of each other, was thought to be extremely low (Frantzis, 1998). However, because full necropsies had not been conducted, and no abnormalities were noted, the cause of the strandings could not be precisely determined (Cox *et al.,* 2006). A Bioacoustics Panel convened by NATO concluded that the evidence available did not allow them to accept or reject sonar exposures as a causal agent in these stranding events. The analysis of this stranding event provided support for, but no clear evidence for, the cause-and-effect relationship of tactical sonar training activities and beaked whale strandings (Cox *et al.,* 2006).

Bahamas (2000)—NMFS and the Navy prepared a joint report addressing the multi-species stranding in the Bahamas in 2000, which took place within 24 hours of U.S. Navy ships using MFAS as they passed through the Northeast and Northwest Providence Channels on March 15–16, 2000. The ships, which operated both AN/SQS–53C and AN/SQS–56, moved through the channel while emitting sonar pings approximately every 24 seconds. Of the 17 cetaceans that stranded over a 36-hr period (Cuvier's beaked whales, Blainville's beaked whales, minke whales, and a spotted dolphin), seven animals died on the beach (five Cuvier's beaked whales, one Blainville's beaked whale, and the spotted dolphin), while the other 10 were returned to the water alive (though their ultimate fate is unknown). As discussed in the Bahamas report (DOC/DON, 2001), there is no likely association between the minke whale and spotted dolphin strandings and the operation of MFAS.

Necropsies were performed on five of the stranded beaked whales. All five necropsied beaked whales were in good body condition, showing no signs of infection, disease, ship strike, blunt trauma, or fishery related injuries, and three still had food remains in their stomachs. Auditory structural damage was discovered in four of the whales, specifically bloody effusions or hemorrhaging around the ears. Bilateral intracochlear and unilateral temporal region subarachnoid hemorrhage, with blood clots in the lateral ventricles, were found in two of the whales. Three of the whales had small hemorrhages in their acoustic fats (located along the jaw and in the melon).

A comprehensive investigation was conducted and all possible causes of the stranding event were considered, whether they seemed likely at the outset or not. Based on the way in which the strandings coincided with ongoing naval activity involving tactical MFAS use, in terms of both time and geography, the nature of the physiological effects experienced by the dead animals, and the absence of any other acoustic sources, the investigation team concluded that MFAS aboard U.S. Navy ships that were in use during the active sonar exercise in question were the most plausible source of this acoustic or impulse trauma to beaked whales. This sound source was active in a complex environment that included the presence of a surface duct, unusual and steep bathymetry, a constricted channel with limited egress, intensive use of multiple, active sonar units over an extended period of time, and the presence of beaked whales that appear to be sensitive to the frequencies produced by these active sonars. The investigation team concluded that the cause of this stranding event was the confluence of the Navy MFAS and these contributory factors working together, and further recommended that the Navy avoid operating MFAS in situations where these five factors would be likely to occur. This report does not conclude that all five of these factors must be present for a stranding to occur, nor that beaked whales are the only species that could potentially be affected by the confluence of the other factors. Based on this, NMFS believes that the operation of MFAS in situations where surface ducts exist, or in marine environments defined by steep bathymetry and/or constricted channels may increase the likelihood of producing a sound field with the potential to cause cetaceans (especially beaked whales) to strand, and therefore, suggests the need for increased vigilance while operating MFAS in these areas, especially when beaked whales (or potentially other deep divers) are likely present.

Madeira, Spain (2000)—From May 10–14, 2000, three Cuvier's beaked whales were found atypically stranded on two islands in the Madeira archipelago, Portugal (Cox *et al.,* 2006). A fourth animal was reported floating in the Madeiran waters by fisherman but did not come ashore (Woods Hole Oceanographic Institution, 2005). Joint NATO amphibious training peacekeeping exercises involving participants from 17 countries 80 warships, took place in Portugal during May 2–15, 2000.

The bodies of the three stranded whales were examined post mortem (Woods Hole Oceanographic Institution, 2005), though only one of the stranded whales was fresh enough (24 hours after stranding) to be necropsied (Cox *et al.,* 2006). Results from the necropsy revealed evidence of hemorrhage and congestion in the right lung and both kidneys (Cox *et al.,* 2006). There was also evidence of intercochlear and intracranial hemorrhage similar to that which was observed in the whales that

stranded in the Bahamas event (Cox *et al.,* 2006). There were no signs of blunt trauma, and no major fractures (Woods Hole Oceanographic Institution, 2005).

The cranial sinuses and airways were found to be clear with little or no fluid deposition, which may indicate good preservation of tissues (Woods Hole Oceanographic Institution, 2005).

Several observations on the Madeira stranded beaked whales, such as the pattern of injury to the auditory system, are the same as those observed in the Bahamas strandings. Blood in and around the eyes, kidney lesions, pleural hemorrhages, and congestion in the lungs are particularly consistent with the pathologies from the whales stranded in the Bahamas, and are consistent with stress and pressure related trauma. The similarities in pathology and stranding patterns between these two events suggest that a similar pressure event may have precipitated or contributed to the strandings at both sites (Woods Hole Oceanographic Institution, 2005).

Even though no definitive causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): exercises were conducted in areas of at least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 fathoms (1,000 to 6,000 m) occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships were operating around Madeira, though it is not known if MFAS was used, and the specifics of the sound sources used are unknown (Cox *et al.,* 2006, Freitas, 2004); and exercises took place in an area surrounded by landmasses separated by less than 35 nm (65 km) and at least 10 nm (19 km) in length, or in an embayment. Exercises involving multiple ships employing MFAS near land may produce sound directed towards a channel or embayment that may cut off the lines of egress for marine mammals (Freitas, 2004).

Canary Islands, Spain (2002)—The southeastern area within the Canary Islands is well known for aggregations of beaked whales due to its ocean depths of greater than 547 fathoms (1,000 m) within a few hundred meters of the coastline (Fernandez *et al.,* 2005). On September 24, 2002, 14 beaked whales were found stranded on Fuerteventura and Lanzarote Islands in the Canary Islands (International Council for Exploration of the Sea, 2005a). Seven whales died, while the remaining seven live whales were returned to deeper waters (Fernandez *et al.,* 2005). Four beaked whales were found stranded dead over the next three days either on the coast or floating offshore. These strandings occurred within near proximity of an international naval exercise that utilized MFAS and involved numerous surface warships and several submarines. Strandings began about 4 hours after the onset of MFAS activity (International Council for Exploration of the Sea, 2005a; Fernandez *et al.,* 2005).

Eight Cuvier's beaked whales, one Blainville's beaked whale, and one Gervais' beaked whale were necropsied, six of them within 12 hours of stranding (Fernandez *et al.,* 2005). No pathogenic bacteria were isolated from the carcasses (Jepson *et al.,* 2003). The animals displayed severe vascular congestion and hemorrhage especially around the tissues in the jaw, ears, brain, and kidneys, displaying marked disseminated microvascular hemorrhages associated with widespread fat emboli (Jepson *et al.,* 2003; International Council for Exploration of the Sea, 2005a). Several organs contained intravascular bubbles, although definitive evidence of gas embolism in vivo is difficult to determine after death (Jepson *et al.,* 2003). The livers of the necropsied animals were the most consistently affected organ, which contained macroscopic gas-filled cavities and had variable degrees of fibrotic encapsulation. In some animals, cavitary lesions had extensively replaced the normal tissue (Jepson *et al.,* 2003). Stomachs contained a large amount of fresh and undigested contents, suggesting a rapid onset of disease and death (Fernandez *et al.,* 2005). Head and neck lymph nodes were enlarged and congested, and parasites were found in the kidneys of all animals (Fernandez *et al.,* 2005).

The association of NATO MFAS use close in space and time to the beaked whale strandings, and the similarity between this stranding event and previous beaked whale mass strandings coincident with sonar use, suggests that a similar scenario and causative mechanism of stranding may be shared between the events. Beaked whales stranded in this event demonstrated brain and auditory system injuries, hemorrhages, and congestion in multiple organs, similar to the pathological findings of the Bahamas and Madeira stranding events. In addition, the necropsy results of Canary Islands stranding event lead to the hypothesis that the presence of disseminated and widespread gas bubbles and fat emboli were indicative of nitrogen bubble formation, similar to what might be expected in decompression sickness (Jepson *et al.,* 2003; Fernández *et al.,* 2005).

Hanalei Bay (2004)—On July 3 and 4, 2004, approximately 150 to 200 melon-headed whales occupied the shallow waters of the Hanalei Bay, Kaua'i, Hawaii for over 28 hrs. Attendees of a canoe blessing observed the animals entering the Bay in a single wave formation at 7 a.m. on July 3, 2004. The animals were observed moving back into the shore from the mouth of the Bay at 9 a.m. The usually pelagic animals milled in the shallow bay and were returned to deeper water with human assistance beginning at 9:30 a.m. on July 4, 2004, and were out of sight by 10:30 a.m.

Only one animal, a calf, was known to have died following this event. The animal was noted alive and alone in the Bay on the afternoon of July 4, 2004, and was found dead in the Bay the morning of July 5, 2004. A full necropsy, magnetic resonance imaging, and computerized tomography examination were performed on the calf to determine the manner and cause of death. The combination of imaging, necropsy and histological analyses found no evidence of infectious, internal traumatic, congenital, or toxic factors. Cause of death could not be definitively determined, but it is likely that maternal separation, poor nutritional condition, and dehydration contributed to the final demise of the animal. Although we do not know when the calf was separated from its mother, the animals' movement into the Bay and subsequent milling and re-grouping may have contributed to the separation or lack of nursing, especially if the maternal bond was weak or this was an inexperienced mother with her first calf.

Environmental factors, abiotic and biotic, were analyzed for any anomalous occurrences that would have contributed to the animals entering and remaining in Hanalei Bay. The Bay's bathymetry is similar to many other sites within the Hawaiian Island chain and dissimilar to sites that have been associated with mass strandings in other parts of the U.S. The weather conditions appeared to be normal for that time of year with no fronts or other significant features noted. There was no evidence of unusual distribution, occurrence of predator or prey species, or unusual harmful algal blooms, although Mobley *et al.,* 2007 suggested that the full moon cycle that occurred at that time may have influenced a run of squid into the Bay. Weather patterns and bathymetry that have been associated with mass

strandings elsewhere were not found to occur in this instance.

The Hanalei event was spatially and temporally correlated with RIMPAC. Official sonar training and tracking exercises in the Pacific Missile Range Facility (PMRF) warning area did not commence until approximately 8 a.m. on July 3 and were thus ruled out as a possible trigger for the initial movement into the Bay. However, six naval surface vessels transiting to the operational area on July 2 intermittently transmitted active sonar (for approximately 9 hours total from 1:15 p.m. to 12:30 a.m.) as they approached from the south. The potential for these transmissions to have triggered the whales' movement into Hanalei Bay was investigated. Analyses with the information available indicated that animals to the south and east of Kaua'i could have detected active sonar transmissions on July 2, and reached Hanalei Bay on or before 7 a.m. on July 3. However, data limitations regarding the position of the whales prior to their arrival in the Bay, the magnitude of sonar exposure, behavioral responses of melon-headed whales to acoustic stimuli, and other possible relevant factors preclude a conclusive finding regarding the role of sonar in triggering this event. Propagation modeling suggests that transmissions from sonar use during the July 3 exercise in the PMRF warning area may have been detectable at the mouth of the Bay. If the animals responded negatively to these signals, it may have contributed to their continued presence in the Bay. The U.S. Navy ceased all active sonar transmissions during exercises in this range on the afternoon of July 3. Subsequent to the cessation of sonar use, the animals were herded out of the Bay.

While causation of this stranding event may never be unequivocally determined, we consider the active sonar transmissions of July 2–3, 2004, a plausible, if not likely, contributing factor in what may have been a confluence of events. This conclusion is based on the following: (1) The evidently anomalous nature of the stranding; (2) its close spatiotemporal correlation with wide-scale, sustained use of sonar systems previously associated with stranding of deep-diving marine mammals; (3) the directed movement of two groups of transmitting vessels toward the southeast and southwest coast of Kauai; (4) the results of acoustic propagation modeling and an analysis of possible animal transit times to the Bay; and (5) the absence of any other compelling causative explanation. The initiation and persistence of this event may have resulted from an interaction of biological and physical factors. The biological factors may have included the presence of an apparently uncommon, deep-diving cetacean species (and possibly an offshore, non-resident group), social interactions among the animals before or after they entered the Bay, and/or unknown predator or prey conditions. The physical factors may have included the presence of nearby deep water, multiple vessels transiting in a directed manner while transmitting active sonar over a sustained period, the presence of surface sound ducting conditions, and/or intermittent and random human interactions while the animals were in the Bay.

A separate event involving melon-headed whales and rough-toothed dolphins took place over the same period of time in the Northern Mariana Islands (Jefferson *et al.,* 2006), which is several thousand miles from Hawaii. Some 500 to 700 melon-headed whales came into Sasanhaya Bay on July 4, 2004, near the island of Rota and then left of their own accord after 5.5 hours; no known active sonar transmissions occurred in the vicinity of that event. The Rota incident led to scientific debate regarding what, if any, relationship the event had to the simultaneous events in Hawaii and whether they might be related by some common factor (e.g., there was a full moon on July 2, 2004, as well as during other melon-headed whale strandings and nearshore aggregations (Brownell *et al.,* 2009; Lignon *et al.,* 2007; Mobley *et al.,* 2007). Brownell *et al.* (2009) compared the two incidents, along with one other stranding incident at Nuka Hiva in French Polynesia and normal resting behaviors observed at Palmyra Island, in regard to physical features in the areas, melon-headed whale behavior, and lunar cycles. Brownell *et al.,* (2009) concluded that the rapid entry of the whales into Hanalei Bay, their movement into very shallow water far from the 100-m contour, their milling behavior (typical pre-stranding behavior), and their reluctance to leave the bay constituted an unusual event that was not similar to the events that occurred at Rota (but was similar to the events at Palmyra), which appear to be similar to observations of melon-headed whales resting normally at Palmyra Island. Additionally, there was no correlation between lunar cycle and the types of behaviors observed in the Brownell *et al.* (2009) examples.

Spain (2006)—The Spanish Cetacean Society reported an atypical mass stranding of four beaked whales that occurred January 26, 2006, on the southeast coast of Spain, near Mojacar (Gulf of Vera) in the Western Mediterranean Sea. According to the report, two of the whales were discovered the evening of January 26 and were found to be still alive. Two other whales were discovered during the day on January 27, but had already died. The first three animals were located near the town of Mojacar and the fourth animal was found dead, a few kilometers north of the first three animals. From January 25–26, 2006, Standing NATO Response Force Maritime Group Two (five of seven ships including one U.S. ship under NATO Operational Control) had conducted active sonar training against a Spanish submarine within 50 nm (93 km) of the stranding site.

Veterinary pathologists necropsied the two male and two female Cuvier's beaked whales. According to the pathologists, the most likely primary cause of this type of beaked whale mass stranding event was anthropogenic acoustic activities, most probably anti-submarine MFAS used during the military naval exercises. However, no positive acoustic link was established as a direct cause of the stranding. Even though no causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): exercises were conducted in areas of at least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 fathoms (1,000 to 6,000 m) occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships (in this instance, five) were operating MFAS in the same area over extended periods of time (in this case, 20 hours) in close proximity; and exercises took place in an area surrounded by landmasses, or in an embayment. Exercises involving multiple ships employing MFAS near land may have produced sound directed towards a channel or embayment that may have cut off the lines of egress for the affected marine mammals (Freitas, 2004).

Association Between Mass Stranding Events and Exposure to MFAS

Several authors have noted similarities between some of these stranding incidents: they occurred in islands or archipelagoes with deep water nearby, several appeared to have been associated with acoustic waveguides like surface ducting, and the sound fields created by ships transmitting MFAS (Cox *et al.,* 2006, D'Spain *et al.,* 2006). Although Cuvier's

beaked whales have been the most common species involved in these stranding events (81 percent of the total number of stranded animals), other beaked whales (including *Mesoplodon europeaus, M. densirostris,* and *Hyperoodon ampullatus*) comprise 14 percent of the total. Other species (*Stenella coeruleoalba, Kogia breviceps* and *Balaenoptera acutorostrata*) have stranded, but in much lower numbers and less consistently than beaked whales.

Based on the evidence available, however, we cannot determine whether (a) Cuvier's beaked whale is more prone to injury from high-intensity sound than other species; (b) their behavioral responses to sound makes them more likely to strand; or (c) they are more likely to be exposed to MFAS than other cetaceans (for reasons that remain unknown). Because the association between active sonar exposures and marine mammals mass stranding events is not consistent—some marine mammals strand without being exposed to sonar and some sonar transmissions are not associated with marine mammal stranding events despite their co-occurrence—other risk factors or a grouping of risk factors probably contribute to these stranding events.

Behaviorally Mediated Responses to MFAS That May Lead to Stranding

Although the confluence of Navy MFAS with the other contributory factors noted in the report was identified as the cause of the 2000 Bahamas stranding event, the specific mechanisms that led to that stranding (or the others) are not understood, and there is uncertainty regarding the ordering of effects that led to the stranding. It is unclear whether beaked whales were directly injured by sound (e.g., acoustically mediated bubble growth, as addressed above) prior to stranding or whether a behavioral response to sound occurred that ultimately caused the beaked whales to be injured and strand.

Although causal relationships between beaked whale stranding events and active sonar remain unknown, several authors have hypothesized that stranding events involving these species in the Bahamas and Canary Islands may have been triggered when the whales changed their dive behavior in a startled response to exposure to active sonar or to further avoid exposure (Cox *et al.,* 2006, Rommel *et al.,* 2006). These authors proposed three mechanisms by which the behavioral responses of beaked whales upon being exposed to active sonar might result in a stranding event. These include the following: gas bubble formation caused by excessively fast surfacing; remaining at the surface too long when tissues are supersaturated with nitrogen; or diving prematurely when extended time at the surface is necessary to eliminate excess nitrogen. More specifically, beaked whales that occur in deep waters that are in close proximity to shallow waters (for example, the ''canyon areas'' that are cited in the Bahamas stranding event; see D'Spain and D'Amico, 2006), may respond to active sonar by swimming into shallow waters to avoid further exposures and strand if they were not able to swim back to deeper waters. Second, beaked whales exposed to active sonar might alter their dive behavior. Changes in their dive behavior might cause them to remain at the surface or at depth for extended periods of time which could lead to hypoxia directly by increasing their oxygen demands or indirectly by increasing their energy expenditures (to remain at depth) and increase their oxygen demands as a result. If beaked whales are at depth when they detect a ping from an active sonar transmission and change their dive profile, this could lead to the formation of significant gas bubbles, which could damage multiple organs or interfere with normal physiological function (Cox *et al.,* 2006; Rommel *et al.,* 2006; Zimmer and Tyack, 2007). Baird *et al.* (2005) found that slow ascent rates from deep dives and long periods of time spent within 50 m of the surface were typical for both Cuvier's and Blainville's beaked whales, the two species involved in mass strandings related to naval sonar. These two behavioral mechanisms may be necessary to purge excessive dissolved nitrogen concentrated in their tissues during their frequent long dives (Baird *et al.,* 2005). Baird *et al.* (2005) further suggests that abnormally rapid ascents or premature dives in response to high-intensity sonar could indirectly result in physical harm to the beaked whales, through the mechanisms described above (gas bubble formation or non-elimination of excess nitrogen).

Because many species of marine mammals make repetitive and prolonged dives to great depths, it has long been assumed that marine mammals have evolved physiological mechanisms to protect against the effects of rapid and repeated decompressions. Although several investigators have identified physiological adaptations that may protect marine mammals against nitrogen gas supersaturation (alveolar collapse and elective circulation; Kooyman *et al.,* 1972; Ridgway and Howard, 1979), Ridgway and Howard (1979) reported that bottlenose dolphins that were trained to dive repeatedly had muscle tissues that were substantially supersaturated with nitrogen gas. Houser *et al.* (2001) used these data to model the accumulation of nitrogen gas within the muscle tissue of other marine mammal species and concluded that cetaceans that dive deep and have slow ascent or descent speeds would have tissues that are more supersaturated with nitrogen gas than other marine mammals. Based on these data, Cox *et al.* (2006) hypothesized that a critical dive sequence might make beaked whales more prone to stranding in response to acoustic exposures. The sequence began with (1) Very deep (to depths as deep as 2 kilometers) and long (as long as 90 minutes) foraging dives; (2) relatively slow, controlled ascents; and (3) a series of ''bounce'' dives between 100 and 400 m in depth (also see Zimmer and Tyack, 2007). They concluded that acoustic exposures that disrupted any part of this dive sequence (for example, causing beaked whales to spend more time at surface without the bounce dives that are necessary to recover from the deep dive) could produce excessive levels of nitrogen supersaturation in their tissues, leading to gas bubble and emboli formation that produces pathologies similar to decompression sickness.

Zimmer and Tyack (2007) modeled nitrogen tension and bubble growth in several tissue compartments for several hypothetical dive profiles and concluded that repetitive shallow dives (defined as a dive where depth does not exceed the depth of alveolar collapse, approximately 72 m for Ziphius), perhaps as a consequence of an extended avoidance reaction to sonar sound, could pose a risk for decompression sickness and that this risk should increase with the duration of the response. Their models also suggested that unrealistically rapid ascent rates of ascent from normal dive behaviors are unlikely to result in supersaturation to the extent that bubble formation would be expected. Tyack *et al.* (2006) suggested that emboli observed in animals exposed to mid-frequency range sonar (Jepson *et al.,* 2003; Fernandez *et al.,* 2005) could stem from a behavioral response that involves repeated dives shallower than the depth of lung collapse. Given that nitrogen gas accumulation is a passive process (i.e. nitrogen is metabolically inert), a bottlenose dolphin was trained to repetitively dive a profile predicted to elevate nitrogen saturation to the point that nitrogen bubble formation was

predicted to occur. However, inspection of the vascular system of the dolphin via ultrasound did not demonstrate the formation of asymptomatic nitrogen gas bubbles (Houser *et al.,* 2007). Baird *et al.* (2008), in a beaked whale tagging study off Hawaii, showed that deep dives are equally common during day or night, but ''bounce dives'' are typically a daytime behavior, possibly associated with visual predator avoidance. This may indicate that ''bounce dives'' are associated with something other than behavioral regulation of dissolved nitrogen levels, which would be necessary day and night.

If marine mammals respond to a Navy vessel that is transmitting active sonar in the same way that they might respond to a predator, their probability of flight responses should increase when they perceive that Navy vessels are approaching them directly, because a direct approach may convey detection and intent to capture (Burger and Gochfeld, 1981, 1990; Cooper, 1997, 1998). The probability of flight responses should also increase as received levels of active sonar increase (and the ship is, therefore, closer) and as ship speeds increase (that is, as approach speeds increase). For example, the probability of flight responses in Dall's sheep (*Ovis dalli dalli*) (Frid 2001a, b), ringed seals (*Phoca hispida*) (Born *et al.,* 1999), Pacific brant (*Branta bernic nigricans*) and Canada geese (*B. Canadensis*) increased as a helicopter or fixed-wing aircraft approached groups of these animals more directly (Ward *et al.,* 1999). Bald eagles (*Haliaeetus leucocephalus*) perched on trees alongside a river were also more likely to flee from a paddle raft when their perches were closer to the river or were closer to the ground (Steidl and Anthony, 1996).

Despite the many theories involving bubble formation (both as a direct cause of injury (see Acoustically Mediated Bubble Growth Section) and an indirect cause of stranding (See Behaviorally Mediated Bubble Growth Section), Southall *et al.,* (2007) summarizes that there is either scientific disagreement or a lack of information regarding each of the following important points: (1) Received acoustical exposure conditions for animals involved in stranding events; (2) pathological interpretation of observed lesions in stranded marine mammals; (3) acoustic exposure conditions required to induce such physical trauma directly; (4) whether noise exposure may cause behavioral reactions (such as atypical diving behavior) that secondarily cause bubble formation and tissue damage; and (5) the extent the post mortem artifacts introduced by decomposition before sampling, handling, freezing, or necropsy procedures affect interpretation of observed lesions.

Impulsive Sources

Underwater explosive detonations send a shock wave and sound energy through the water and can release gaseous by-products, create an oscillating bubble, or cause a plume of water to shoot up from the water surface. The shock wave and accompanying noise are of most concern to marine animals. Depending on the intensity of the shock wave and size, location, and depth of the animal, an animal can be injured, killed, suffer non-lethal physical effects, experience hearing related effects with or without behavioral responses, or exhibit temporary behavioral responses or tolerance from hearing the blast sound. Generally, exposures to higher levels of impulse and pressure levels would result in greater impacts to an individual animal.

Injuries resulting from a shock wave take place at boundaries between tissues of different densities. Different velocities are imparted to tissues of different densities, and this can lead to their physical disruption. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000). Gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill, 1978; Yelverton *et al.,* 1973). In addition, gas-containing organs including the nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Intestinal walls can bruise or rupture, with subsequent hemorrhage and escape of gut contents into the body cavity. Less severe gastrointestinal tract injuries include contusions, petechiae (small red or purple spots caused by bleeding in the skin), and slight hemorrhaging (Yelverton *et al.,* 1973).

Because the ears are the most sensitive to pressure, they are the organs most sensitive to injury (Ketten, 2000). Sound-related damage associated with sound energy from detonations can be theoretically distinct from injury from the shock wave, particularly farther from the explosion. If a noise is audible to an animal, it has the potential to damage the animal's hearing by causing decreased sensitivity (Ketten, 1995). Sound-related trauma can be lethal or sublethal. Lethal impacts are those that result in immediate death or serious debilitation in or near an intense source and are not, technically, pure acoustic trauma (Ketten, 1995). Sublethal impacts include hearing loss, which is caused by exposures to perceptible sounds. Severe damage (from the shock wave) to the ears includes tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear. Moderate injury implies partial hearing loss due to tympanic membrane rupture and blood in the middle ear. Permanent hearing loss also can occur when the hair cells are damaged by one very loud event, as well as by prolonged exposure to a loud noise or chronic exposure to noise. The level of impact from blasts depends on both an animal's location and, at outer zones, on its sensitivity to the residual noise (Ketten, 1995).

There have been fewer studies addressing the behavioral effects of explosives on marine mammals compared to MFAS/HFAS. However, though the nature of the sound waves emitted from an explosion are different (in shape and rise time) from MFAS/HFAS, we still anticipate the same sorts of behavioral responses to result from repeated explosive detonations (a smaller range of likely less severe responses (i.e., not rising to the level of MMPA harassment) would be expected to occur as a result of exposure to a single explosive detonation that was not powerful enough or close enough to the animal to cause TTS or injury).

Vessel Strike

Commercial and Navy ship strikes of cetaceans can cause major wounds, which may lead to the death of the animal. An animal at the surface could be struck directly by a vessel, a surfacing animal could hit the bottom of a vessel, or an animal just below the surface could be cut by a vessel's propeller. The severity of injuries typically depends on the size and speed of the vessel (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Vanderlaan and Taggart, 2007). The most vulnerable marine mammals are those that spend extended periods of time at the surface in order to restore oxygen levels within their tissues after deep dives (e.g., the sperm whale). In addition, some baleen whales, such as the North Atlantic right whale, seem generally unresponsive to vessel sound, making them more susceptible to vessel collisions (Nowacek *et al.,* 2004). These species are primarily large, slow moving whales. Smaller marine mammals (e.g., bottlenose dolphin) move quickly through the water column and are often seen riding the bow wave of large ships. Marine mammal responses to vessels

may include avoidance and changes in dive pattern (NRC, 2003).

An examination of all known ship strikes from all shipping sources (civilian and military) indicates vessel speed is a principal factor in whether a vessel strike results in death (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Jensen and Silber, 2003; Vanderlaan and Taggart, 2007). In assessing records in which vessel speed was known, Laist *et al.* (2001) found a direct relationship between the occurrence of a whale strike and the speed of the vessel involved in the collision. The authors concluded that most deaths occurred when a vessel was traveling in excess of 13 knots.

Jensen and Silber (2003) detailed 292 records of known or probable ship strikes of all large whale species from 1975 to 2002. Of these, vessel speed at the time of collision was reported for 58 cases. Of these cases, 39 (or 67 percent) resulted in serious injury or death (19 of those resulted in serious injury as determined by blood in the water, propeller gashes or severed tailstock, and fractured skull, jaw, vertebrae, hemorrhaging, massive bruising or other injuries noted during necropsy and 20 resulted in death). Operating speeds of vessels that struck various species of large whales ranged from 2 to 51 knots. The majority (79 percent) of these strikes occurred at speeds of 13 knots or greater. The average speed that resulted in serious injury or death was 18.6 knots. Pace and Silber (2005) found that the probability of death or serious injury increased rapidly with increasing vessel speed. Specifically, the predicted probability of serious injury or death increased from 45 to 75 percent as vessel speed increased from 10 to 14 knots, and exceeded 90 percent at 17 knots. Higher speeds during collisions result in greater force of impact, but higher speeds also appear to increase the chance of severe injuries or death by pulling whales toward the vessel. Computer simulation modeling showed that hydrodynamic forces pulling whales toward the vessel hull increase with increasing speed (Clyne, 1999; Knowlton *et al.,* 1995).

The Jensen and Silber (2003) report notes that the database represents a minimum number of collisions, because the vast majority probably goes undetected or unreported. In contrast, Navy vessels are likely to detect any strike that does occur, and they are required to report all ship strikes involving marine mammals. Overall, the percentages of Navy traffic relative to overall large shipping traffic are very small (on the order of 2 percent).

Over a period of 20 years from 1991 to 2010 there have been a total of 16 Navy vessel strikes in SOCAL, and five Navy vessel strikes in HRC. Two of the five HRC Navy strikes were by smaller workboats (less than 12 m in length), versus larger Navy ships. In terms of the 16 consecutive 5-year periods in the last 20 years, no single 5-year period exceeded ten whales struck within SOCAL and HRC (periods from 2000–2004 and 2001–2005). For Navy vessel strikes in SOCAL, there were six consecutive 5-year periods with six or more whales struck (1997–2001, 1998–2002, 1999–2003, 2000–2004, 2001–2005, and 2002–2006), and no more than three whales struck in the last 5-year period from 2006–2010. No whales have been struck by Navy vessels in SOCAL since 2009. For Navy vessel strikes in the HRC for the same time period, there was one 5-year period when three whales were struck (2003–2007), seven periods when two whales were struck, five periods when one whale was struck, and three periods when no whales were struck. Within the data set analyzed for HRC through 2010, no whales have been struck by a Navy vessel since 2008.

Mitigation

In order to issue an incidental take authorization under section 101(a)(5)(A) of the MMPA, NMFS must set forth the ''permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.'' The NDAA of 2004 amended the MMPA as it relates to military-readiness activities and the ITA process such that ''least practicable adverse impact'' shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the ''military readiness activity''. The training and testing activities described in the Navy's LOA application are considered military readiness activities.

NMFS reviewed the proposed activities and the proposed mitigation measures as described in the Navy's LOA application to determine if they would result in the least practicable adverse effect on marine mammals, which includes a careful balancing of the likely benefit of any particular measure to the marine mammals with the likely effect of that measure on personnel safety, practicality of implementation, and impact on the effectiveness of the ''military-readiness activity.'' Included below are the mitigation measures the Navy proposed in their LOA application.

Proposed Mitigation Measures

They Navy's proposed mitigation measures are modifications to the proposed activities that are implemented for the sole purpose of reducing a specific potential environmental impact on a particular resource. These do not include standard operating procedures, which are established for reasons other than environmental benefit. Most of the following proposed mitigation measures are currently, or were previously, implemented as a result of past environmental compliance documents. The Navy's overall approach to assessing potential mitigation measures is based on two principles: (1) mitigation measures will be effective at reducing potential impacts on the resource, and (2) from a military perspective, the mitigation measures are practicable, executable, and safety and readiness will not be impacted.

Lookouts

The use of lookouts is a critical component of Navy procedural measures and implementation of mitigation zones. Navy lookouts are highly qualified and experienced observers of the marine environment. Their duties require that they report all objects sighted in the water to the Officer of the Deck (OOD) (e.g., trash, a periscope, marine mammals, sea turtles) and all disturbances (e.g., surface disturbance, discoloration) that may be indicative of a threat to the vessel and its crew. There are personnel standing watch on station at all times (day and night) when a ship or surfaced submarine is moving through the water.

The Navy would have two types of lookouts for the purposes of conducting visual observations: (1) those positioned on surface ships, and (2) those positioned in aircraft or on boats. Lookouts positioned on surface ships would be dedicated solely to diligent observation of the air and surface of the water. They would have multiple observation objectives, which include but are not limited to detecting the presence of biological resources and recreational or fishing boats, observing mitigation zones, and monitoring for vessel and personnel safety concerns.

Due to aircraft and boat manning and space restrictions, lookouts positioned in aircraft or on boats would consist of the aircraft crew, pilot, or boat crew. Lookouts positioned in aircraft and boats may necessarily be responsible for tasks in addition to observing the air or surface of the water (for example,

navigation of a helicopter or rigid hull inflatable boat). However, aircraft and boat lookouts would, to the maximum extent practicable and consistent with aircraft and boat safety and training and testing requirements, comply with the observation objectives described above for lookouts positioned on surface ships.

The Navy proposes to use at least one lookout during the training and testing activities provided in Table 10. Additional details on lookout procedures and implementation are provided in Chapter 11 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

TABLE 10—LOOKOUT MITIGATION MEASURES FOR TRAINING AND TESTING ACTIVITIES WITHIN THE HSTT STUDY AREA

Number of lookouts	Training and testing activities	Benefit
4	Mine countermeasure and neutralization activities using time delay would use 4, depending on the explosives being used. If applicable, aircrew and divers would report sightings of marine mammals.	Lookouts can visually detect marine mammals so that potentially harmful impacts from explosives use can be avoided. Lookouts dedicated to observations can more quickly and effectively relay sighting information so that corrective action can be taken. Support from aircrew and divers, if they have are involved, would increase the probability of sightings, reducing the potential for impacts.
1 to 2	Vessels using low-frequency active sonar or hull-mounted mid-frequency active sonar associated with ASW activities would have either one or two lookouts, depending on the size and status/location of the vessel. Mine countermeasure and neutralization activities with positive control would use one or two lookouts (depending on net explosive weight), with at least one on each support vessel. If applicable, aircrew and divers would also report the presence of marine mammals. Mine neutralization activities involving diver placed charges of up to 100 lb (45 kg) net explosive weight detonation would use two lookouts. Sinking exercises would use two lookouts (one in an aircraft and one on a vessel). At sea explosives testing would have at least one lookout.	Lookouts can visually detect marine mammals so that potentially harmful impacts from Navy sonar and explosives use can be avoided. Dedicated lookouts can more quickly and effectively relay sighting information so that corrective action can be taken. Support from aircrew and divers, if they are involved, would increase the probability of sightings, reducing the potential for impacts.
1	Surface ships and aircraft conducting ASW, ASUW, or MIW activities using high-frequency active sonar; non-hull mounted mid-frequency active sonar; helicopter dipping mid-frequency active sonar; anti-swimmer grenades; IEER sonobuoys; line charge testing; surface gunnery activities; surface missile activities; bombing activities; explosive torpedo testing; elevated causeway system pile driving; towed in-water devices; full power propulsion testing of surface vessels; and activities using non-explosive practice munitions, would have one lookout.	Lookouts can visually detect marine mammals so that potentially harmful impacts from Navy sonar; explosives; sonobuoys; gunnery rounds; missiles; explosive torpedoes; pile driving; towed systems; surface vessel propulsion; and non-explosive munitions can be avoided.

Personnel standing watch on the bridge, Commanding Officers, Executive Officers, maritime patrol aircraft aircrews, anti-submarine warfare helicopter crews, civilian equivalents, and lookouts would complete the NMFS-approved Marine Species Awareness Training (MSAT) prior to standing watch or serving as a lookout. Additional details on the Navy's MSAT program are provided in Chapter 5 of the HSTT DEIS/OEIS.

Mitigation Zones

The Navy proposes to use mitigation zones to reduce the potential impacts to marine mammals from training and testing activities. Mitigation zones are measured as the radius from a source and represent a distance that the Navy would monitor. Mitigation zones are applied to acoustic stressors (i.e., non-impulsive and impulsive sound) and physical strike and disturbance (e.g., vessel movement and bombing exercises). In each instance, visual detections of marine mammals would be communicated immediately to a watch station for information dissemination and appropriate action. Acoustic detections would be communicated to lookouts posted in aircraft and on surface vessels.

Most of the current mitigation zones for activities that involve the use of impulsive and non-impulsive sources were originally designed to reduce the potential for onset of TTS. The Navy updated their acoustic propagation modeling to incorporate new hearing threshold metrics (i.e., upper and lower frequency limits), new marine mammal density data, and factors such as an animal's likely presence at various depths. An explanation of the acoustic propagation modeling process can be found in the Marine Species Modeling Team Technical Report (U.S. Department of the Navy 2012a).

As a result of updates to the acoustic propagation modeling, some of the ranges to effects are larger than previous model outputs. Due to the ineffectiveness of mitigating such large areas, the Navy is unable to mitigate for onset of TTS during every activity. However, some ranges to effects are smaller than previous models estimated, and the mitigation zones were adjusted accordingly to provide consistency across the measures. The Navy developed each proposed mitigation zone to avoid or reduce the potential for

onset of the lowest level of injury, PTS, out to the predicted maximum range. Mitigating to the predicted maximum range to PTS also mitigates to the predicted maximum range to onset mortality (1 percent mortality), onset slight lung injury, and onset slight gastrointestinal tract injury, since the maximum range to effects for these criteria are shorter than for PTS. Furthermore, in most cases, the predicted maximum range to PTS also covers the predicted average range to TTS. Tables 11 and 12 summarize the predicted average range to TTS, average range to PTS, maximum range to PTS, and recommended mitigation zone for each activity category, based on the Navy's acoustic propagation modeling results. It is important for the Navy to have standardized mitigation zones wherever training and testing may be conducted. The information in Tables 11 and 12 was developed in consideration of both Atlantic and Pacific Ocean conditions, marine mammal species, environmental factors, effectiveness, and operational assessments. Therefore, the ranges to effects in Tables 11 and 12 provide effective values that ensure appropriate mitigation ranges for both Atlantic Fleet and Pacific Fleet activities, and may not align with range to effects values found in other tables of the Navy's LOA application.

The Navy's proposed mitigation zones are based on the longest range for all the marine mammal and sea turtle functional hearing groups. Most mitigation zones were driven by the high-frequency cetaceans or sea turtles functional hearing group. Therefore, the mitigation zones are more conservative for the remaining functional hearing groups (low-frequency and mid-frequency cetaceans, and pinnipeds), and likely cover a larger portion of the potential range to onset of TTS. Additional information on the estimated range to effects for each acoustic stressor is detailed in Chapter 11 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

TABLE 11—PREDICTED RANGES TO TTS, PTS, AND RECOMMENDED MITIGATION ZONES

Activity category	Bin (representative source)*	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone
Non-Impulsive Sound					
Low-Frequency and Hull-Mounted Mid-Frequency Active Sonar [1].	MF1 (SQS–53 ASW hull-mounted sonar).	4,251 yd. (3,887 m)	281 yd. (257 m)	<292 yd. (<267 m)	6 dB power down at 1,000 yd. (914 m); 4 dB power down at 500 yd. (457 m); and shutdown at 200 yd. (183 m).
High-Frequency and Non-Hull Mounted Mid-Frequency Active Sonar.	MF4 (AQS–22 ASW dipping sonar).	226 yd. (207 m)	<55 yd. (<50 m)	<55 yd. (<50 m)	200 yd. (183 m).
Explosive and Impulsive Sound					
Improved Extended Echo Ranging Sonobuoys.	E4 (Explosive sonobuoy).	434 yd. (397 m)	156 yd. (143 m)	563 yd. (515 m)	600 yd. (549 m).
Explosive Sonobuoys using 0.6–2.5 lb. NEW.	E3 (Explosive sonobuoy).	290 yd. (265 m)	113 yd. (103 m)	309 yd. (283 m)	350 yd. (320 m).
Anti-Swimmer Grenades	E2 (Up to 0.5 lb. NEW).	190 yd. (174 m)	83 yd. (76 m)	182 yd. (167 m)	200 yd. (183 m).
Mine Countermeasure and Neutralization Activities Using Positive Control Firing Devices.	NEW dependent (see Table 12).				
Mine Neutralization Diver-Placed Mines Using Time-Delay Firing Devices.	E6 (Up to 20 lb. NEW).	647 yd. (592 m)	232 yd. (212 m)	469 yd. (429 m)	1,000 yd. (915 m).
Ordnance Testing (Line Charge Testing).	E4 (Numerous 5 lb. charges).	434 yd. (397 m)	156 yd. (143 m)	563 yd. (515 m)	900 yd. (823 m).**
Gunnery Exercises—Small- and Medium-Caliber (Surface Target).	E2 (40 mm projectile).	190 yd. (174 m)	83 yd. (76 m)	182 yd. (167 m)	200 yd. (183 m).
Gunnery Exercises—Large-Caliber (Surface Target).	E5 (5 in. projectiles at the surface***).	453 yd. (414 m)	186 yd. (170 m)	526 yd. (481 m)	600 yd. (549 m).
Missile Exercises up to 250 lb. NEW (Surface Target).	E9 (Maverick missile).	949 yd. (868 m)	398 yd. (364 m)	699 yd. (639 m)	900 yd. (823 m).
Missile Exercises up to 500 lb. NEW (Surface Target).	E10 (Harpoon missile).	1,832 yd. (1,675 m)	731 yd. (668 m)	1,883 yd. (1,721 m)	2,000 yd. (1.8 km).
Bombing Exercises	E12 (MK–84 2,000 lb. bomb).	2,513 yd. (2.3 km)	991 yd. (906 m)	2,474 yd. (2.3 km)	2,500 yd. (2.3 km).**
Torpedo (Explosive) Testing	E11 (MK–48 torpedo).	1,632 yd. (1.5 km)	697 yd. (637 m)	2,021 yd. (1.8 km)	2,100 yd. (1.9 km).
Sinking Exercises	E12 (Various sources up to the MK–84 2,000 lb. bomb).	2,513 yd. (2.3 km)	991 yd. (906 m)	2,474 yd. (2.3 km)	2.5 nm.

TABLE 11—PREDICTED RANGES TO TTS, PTS, AND RECOMMENDED MITIGATION ZONES—Continued

Activity category	Bin (representative source)*	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone
At-Sea Explosive Testing	E5 (Various sources less than 10 lb. NEW at various depths***).	525 yd. (480 m)	204 yd. (187 m)	649 yd. (593 m)	1,600 yd. (1.4 km).**
Elevated Causeway System—Pile Driving.	24 in. steel impact hammer.	1,094 yd. (1,000 m)	51 yd. (46 m)	51 yd. (46 m)	60 yd. (55 m).

ASW: anti-submarine warfare; JAX: Jacksonville; NEW: net explosive weight; PTS: permanent threshold shift; TTS: temporary threshold shift.
[1] The mitigation zone would be 200 yd for bin LF4 testing sources.
* This table does not provide an inclusive list of source bins; bins presented here represent the source bin with the largest range to effects within the given activity category.
** Recommended mitigation zones are larger than the modeled injury zones to account for multiple types of sources or charges being used.
*** The representative source bin E5 has different range to effects depending on the depth of activity occurrence (at the surface or at various depths).

TABLE 12—PREDICTED RANGES TO EFFECTS AND MITIGATION ZONE RADIUS FOR MINE COUNTERMEASURE AND NEUTRALIZATION ACTIVITIES USING POSITIVE CONTROL FIRING DEVICES

Charge size net explosive weight (bins)	General mine countermeasure and neutralization activities using positive control firing devices*				Mine countermeasure and neutralization activities using diver placed charges under positive control**			
	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone
2.6–5 lb. (1.2–2.3 kg) (E4).	434 yd. (474 m)	197 yd. (180 m)	563 yd. (515 m)	600 yd. (549 m)	545 yd. (498 m)	169 yd. (155 m)	301 yd. (275 m)	350 yd. (320 m).
6–10 lb. (2.7–4.5 kg) (E5).	525 yd. (480 m)	204 yd. (187 m)	649 yd. (593 m)	800 yd. (732 m)	587 yd. (537 m)	203 yd. (185 m)	464 yd. (424 m)	500 yd. (457 m).
11–20 lb. (5–9.1 kg) (E6).	766 yd. (700 m)	288 yd. (263 m)	648 yd. (593 m)	800 yd. (732 m)	647 yd. (592 m)	232 yd. (212 m)	469 yd. (429 m)	500 yd. (457 m).
21–60 lb. (9.5–27.2 kg) (E7) ***.	1,670 yd. (1,527 m).	581 yd. (531 m)	964 yd. (882 m)	1,200 yd. (1.1 km).	1,532 yd. (1,401 m).	473 yd. (432 m)	789 yd. (721 m)	800 yd. (732 m).
61–100 lb. (27.7–45.4 kg) (E8) ****.	878 yd. (802 m)	383 yd. (351 m)	996 yd. (911 m)	1,600 yd. (1.4 m).	969 yd. (886 m)	438 yd. (400 m)	850 yd. (777 m)	850 yd. (777 m).
250–500 lb. (113.4–226.8 kg) (E10).	1,832 yd. (1,675 m).	731 yd. (668 m)	1,883 yd. (1,721 m).	2,000 yd. (1.8 km).	.....	.....	.....	Not Applicable.
501–650 lb. (227.3–294.8) (E11).	1,632 yd. (1,492 m).	697 yd. (637 m)	2,021 yd. (1,848 m).	2,100 yd. (1.9 km).	.....	.....	.....	Not Applicable.

PTS: permanent threshold shift; TTS: temporary threshold shift
* These mitigation zones are applicable to all mine countermeasure and neutralization activities conducted in all locations that Tables 2.8–1 through 2.8–5 specifies.
** These mitigation zones are only applicable to mine countermeasure and neutralization activities involving the use of diver placed charges. These activities are conducted in shallow water and the mitigation zones are based only on the functional hearing groups with species that occur in these areas (mid-frequency cetaceans and sea turtles).
*** The E7 bin was only modeled in shallow-water locations so there is no difference for the diver placed charges category.
**** The E8 bin was only modeled for surface explosions, so some of the ranges are shorter than for sources modeled in the E7 bin which occur at depth.

When mine neutralization activities using diver placed charges (up to a 20 lb. NEW) are conducted with a time-delay firing device, the detonation is fused with a specified time-delay by the personnel conducting the activity and is not authorized until the area is clear at the time the fuse is initiated. During these activities, the detonation cannot be terminated once the fuse is initiated due to human safety concerns. The Navy is proposing to modify the number of lookouts currently used for mine neutralization activities using diver-placed time-delay firing devices. As a reference, the current mitigation involves the use of six lookouts and three small rigid hull inflatable boats (two lookouts positioned in each of the three boats) for mitigation zones equal to or larger than 1,400 yd. (1,280 m), or four lookouts and two boats for mitigation zones smaller than 1,400 yd. (1,280 m), which was incorporated into the current Silver Strand Training Complex IHA to minimize the possibility of take by serious injury or mortality (which is not authorized under an IHA). The Navy has determined that using six lookouts and three boats in the long term is impracticable to implement from an operational standpoint due to the impact that it is causing on resource requirements (i.e., limited personnel resources and boat availability). During activities using up to a 20 lb. NEW (bin E6) detonation, the Navy is proposing to have four lookouts and two small rigid hull inflatable boats (two lookouts positioned in each of the two boats) monitoring a 1,000-yd (915-m) mitigation zone. In addition, when aircraft are used, the pilot or member of the aircrew will serve as an additional lookout.

NMFS believes that the Navy's proposed modification to this mitigation measure will still reduce the potential for injury or mortality for a few reasons: (1) The Navy's acoustic propagation modeling results show that the predicted ranges to TTS and PTS for mine neutralization diver-placed mines using time-delay firing devices do not exceed 647 yd (592 m), which is well within the proposed 1,000-yd (915-m) mitigation zone; (2) the number of lookouts for a 1,000-yd (915-m) mitigation zone would not change; (3)

the maximum net explosive weight would decrease from 29 lb (currently) to 20 lb (proposed); (4) the Navy would continue to monitor the mitigation zone for 30 minutes before, during, and 30 after the activity to ensure that the area is clear of marine mammals; and (5) time-delay firing device activities are only conducted during daylight hours.

Vessels and In-Water Devices

Vessel Movement—Ships would avoid approaching marine mammals head on and would maneuver to maintain a mitigation zone of 457 m around observed whales, and 183 m around all other marine mammals (except bow riding dolphins), providing it is safe to do so.

Towed In-water Devices—The Navy would ensure towed in-water devices avoid coming within a mitigation zone of 229 m around any observed marine mammal, providing it is safe to do so.

Non-Explosive Practice Munitions

Gunnery Exercises (small, medium, and large caliber using a surface target)—Mitigation would include visual observation immediately before and during the exercise within a mitigation zone of 183 m around the intended impact location. The exercise would not commence if concentrations of floating vegetation (*Sargassum* or kelp patties) are observed in the mitigation zone. Firing would cease if a marine mammal is visually detected within the mitigation zone. Firing would recommence if any one of the following conditions are met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, (3) the mitigation zone has been clear from any additional sightings for a period of 30 minutes, or (4) the intended target location has been repositioned more than 366 m away from the location of the last sighting.

Bombing Exercises—Mitigation would include visual observation from the aircraft immediately before the exercise and during target approach within a mitigation zone of 914 m around the intended impact location. The exercise would not commence if concentrations of floating vegetation (*Sargassum* or kelp patties) are observed in the mitigation zone. Bombing would cease if a marine mammal is visually detected within the mitigation zone. Bombing would recommence if any one of the following conditions are met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, or (3) the mitigation zone has been clear from any additional sightings for a period of 30 minutes.

Other Mitigation

The Navy Marine Mammal Program utilizes the following standard operating procedures to help to limit the low risk of disease transmission from Navy marine mammals to indigenous marine mammals, including the Hawaiian monk seals, while training in the HRC:

- Waste from Navy sea lions would be collected and disposed of in an approved sewer system;
- During operations, all onsite personnel would be made aware of the potential for disease transfer, and asked to report any sightings of monk seals immediately to other training participants;
- Sea lion handlers would visually scan for indigenous marine animals, especially monk seals, for at least 5 minutes before a Navy sea lion enters the water and would continue monitoring while the sea lion is in the water. If a monk seal is seen approaching or within 100 m of the Navy sea lion, the handler would hold the Navy sea lion in the boat or recall the Navy sea lion immediately if it has already been released; and
- The Navy would obtain an import permit from the State of Hawaii Department of Agriculture and would adhere to the conditions of that permit.

Humpback Whale Cautionary Area

The Navy is proposing to continue their designation of a humpback whale cautionary area in Hawaiian waters. Humpback whales migrate to the Hawaiian Islands each winter to rear their calves and mate. Data indicate that, historically, humpback whales have concentrated in high densities in certain areas around the Hawaiian Islands. NMFS has reviewed the Navy's data on MFAS training in these dense humpback whale areas since June 2006 and found it to be rare and infrequent. While past data is no guarantee of future activity, it documents a history of low level MFAS activity in dense humpback areas. In order to be successful at operational missions and against the threat of quiet, diesel-electric submarines, the Navy has, for more than 40 years, routinely conducted Anti-Submarine Warfare (ASW) training in the waters off the Hawaiian Islands, including the Humpback Whale National Marine Sanctuary. During this period, no reported cases of harmful effects to humpback whales attributed to MFAS use have occurred. Coincident with this use of MFAS, abundance estimates reflect an annual increase in the humpback whale stock (Mobley 2001a, 2004). A recent long-term study of humpback whales in Hawaiian waters shows long-term fidelity to the Hawaiian winter grounds, with many showing sighting spans ranging from 10 to 32 years (Herman *et al.,* 2011).

NMFS and the Navy have explored ways of effecting the least practicable impact (which includes a consideration of practicality of implementation and impacts to training fidelity) to humpback whales from exposure to MFAS. Proficiency in ASW requires that Sailors gain and maintain expert skills and experience in operating MFAS in myriad marine environments. The Hawaiian Islands, including areas in which humpback whales concentrate, contain unique bathymetric features the Navy needs to ensure sailors gain critical skills and unique experience by training in coastal waters. Sound propagates differently in shallow water and no two shallow water areas are the same. So as not to negatively affect military readiness, the Navy contends that it is necessary to maintain the possibility of using all shallow water training areas. Crew members will be working in similar areas during real world events and these are the types of environments where enemy submarines may be operating.

The Navy recognizes the significance of the Hawaiian Islands for humpback whales. The Navy has designated a humpback whale cautionary area, which consists of a 5-km (3.1-mi) buffer zone having one of the highest concentrations of humpback whales during winter months. Similar to the previous HRC rulemaking, conducting exercises in the humpback whale cautionary area would continue to require a much higher level of clearance than typically required for MFAS activities. Should national security needs require MFAS training and testing in the humpback whale cautionary area between December 15 and April 15, it shall be personally authorized by the Commander, U.S. Pacific Fleet (CPF). The CPF shall base such authorization on the unique characteristics of the area from a military readiness perspective, taking into account the importance of the area for humpback whales and the need to minimize adverse impacts on humpback whales from MFAS whenever practicable. Approval at this level for this type of activity is extraordinary. CPF is a four-star Admiral and the highest ranking officer in the U.S. Pacific Fleet. This case-by-case authorization cannot be delegated and represents the Navy's commitment to fully consider and balance mission requirements with environmental

stewardship. Further, CPF would provide specific direction on required mitigation prior to operational units transiting to and training in the humpback whale cautionary area. This process would ensure the decisions to train in this area are made at the highest level in the Pacific Fleet, heighten awareness of humpback whale activities in the cautionary area, and serve to reemphasize that mitigation measures are to be scrupulously followed. The Navy would provide NMFS with advance notification of any MFAS training and testing activities in the humpback whale cautionary area.

Data from several sources, which are summarized and cited on NOAA's Cetacean and Sound Mapping Web site (cetsound.noaa.gov) indicate that there are several resident populations of odontocetes off the western side of the Big Island of Hawaii (e.g., beaked whales, melon-headed whales, dwarf sperm whales, pilot whales). Generally, we highlight the presence of resident populations in the interest of helping to support decisions that ensure that these small populations, limited to a small area of preferred habitat, are not exposed to concentrations of activities within their ranges that have the potential to impact a large portion of the stock/species over longer amounts of time that could have detrimental consequences to the stock/species. However, NMFS has reviewed the Navy's exercise reports and considered/discussed their historical level of activity in the area where these resident populations are concentrated, which is very low, and concluded that time/area restrictions would not afford much reduction of impacts in this location and are not necessary at this point. If future monitoring and exercise reports suggest that increased operations overlap with these resident populations, NMFS would revisit the consideration of time/area limitations around these populations.

Cetacean and Sound Mapping

NMFS Office of Protected Resources standardly considers available information about marine mammal habitat use to inform discussions with applicants regarding potential spatio-temporal limitations of their activities that might help effect the least practicable adverse impact (e.g., Humpback Whale Cautionary Area). Through the Cetacean and Sound Mapping effort (*www.cetsound.noaa.gov*), NOAA's Cetacean Density and Distribution Mapping Working Group (CetMap) is currently involved in a process to compile available literature and solicit expert review to identify areas and times where species are known to concentrate for specific behaviors (e.g., feeding, breeding/calving, or migration) or be range-limited (e.g., small resident populations). These areas, called Biologically Important Areas (BIAs), are useful tools for planning and impact assessments and are being provided to the public via the CetSound Web site, along with a summary of the supporting information. While these BIAs are useful tools for analysts, any decisions regarding protective measures based on these areas must go through the normal MMPA evaluation process (or any other statutory process that the BIAs are used to inform)—the designation of a BIA does not pre-suppose any specific management decision associated with those areas. Additionally, the BIA process is iterative and the areas will be updated as new information becomes available. Currently, NMFS has published BIAs for the Arctic Slope and some in Hawaii (which were considered in the Mitigation Section for HSTT). The BIAs in other regions, such as the Atlantic and West Coast of the continental U.S. are still in development. We have indicated to the Navy that once these BIAs are complete and put on the Web site, we may need to discuss whether (in the context of the nature and scope of any Navy activities planned in and around the BIAs, what impacts might be anticipated, and practicability) additional protective measures might be appropriate.

Stranding Response Plan

NMFS and the Navy developed a Stranding Response Plan for the HRC and SOCAL Range Complex in 2009 as part of the incidental take authorization process. The Stranding Response Plans are specifically intended to outline the applicable requirements the authorizations are conditioned upon in the event that a marine mammal stranding is reported in the HRC or SOCAL Range Complex during a major training exercise. NMFS considers all plausible causes within the course of a stranding investigation and these plans in no way presume that any strandings in a Navy range complex are related to, or caused by, Navy training and testing activities, absent a determination made during investigation. The plans are designed to address mitigation, monitoring, and compliance. The Navy is currently working with NMFS to refine these plans for the new HSTT Study Area (to include regionally specific plans that include more logistical detail). The current Stranding Response Plans for the HRC and SOCAL Range Complex are available for review here: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.*

Mitigation Conclusions

NMFS has carefully evaluated the Navy's proposed mitigation measures and considered a broad range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable adverse impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another: the manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals; the proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and the practicability of the measure for applicant implementation, including consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

In some cases, additional mitigation measures are required beyond those that the applicant proposes. Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed below:

a. Avoidance or minimization of injury or death of marine mammals wherever possible (goals b, c, and d may contribute to this goal).

b. A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

c. A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

d. A reduction in the intensity of exposures (either total number or number at biologically important time or location) to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

e. Avoidance or minimization of adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

f. For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation (shut-down zone, etc.).

Based on our evaluation of the Navy's proposed measures, as well as other measures considered by NMFS or recommended by the public, NMFS has determined preliminarily that the Navy's proposed mitigation measures (especially when the adaptive management component is taken into consideration (see Adaptive Management, below)) are adequate means of effecting the least practicable adverse impacts on marine mammals species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. Further detail is included below.

The proposed rule comment period will afford the public an opportunity to submit recommendations, views, and/or concerns regarding this action and the proposed mitigation measures. While NMFS has determined preliminarily that the Navy's proposed mitigation measures would affect the least practicable adverse impact on the affected species or stocks and their habitat, NMFS will consider all public comments to help inform our final decision. Consequently, the proposed mitigation measures may be refined, modified, removed, or added to prior to the issuance of the final rule based on public comments received, and where appropriate, further analysis of any additional mitigation measures.

Monitoring

Section 101(a)(5)(A) of the MMPA states that in order to issue an ITA for an activity, NMFS must set forth ''requirements pertaining to the monitoring and reporting of such taking''. The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for LOAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

- An increase in the probability of detecting marine mammals, both within the safety zone (thus allowing for more effective implementation of the mitigation) and in general to generate more data to contribute to the analyses mentioned below
- An increase in our understanding of how many marine mammals are likely to be exposed to levels of MFAS/HFAS (or explosives or other stimuli) that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS.
- An increase in our understanding of how marine mammals respond to MFAS/HFAS (at specific received levels), explosives, or other stimuli expected to result in take and how anticipated adverse effects on individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival) through any of the following methods:
  - Behavioral observations in the presence of MFAS/HFAS compared to observations in the absence of sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information)
  - Physiological measurements in the presence of MFAS/HFAS compared to observations in the absence of tactical sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information)
  - Pre-planned and thorough investigation of stranding events that occur coincident to naval activities
  - Distribution and/or abundance comparisons in times or areas with concentrated MFAS/HFAS versus times or areas without MFAS/HFAS
- An increased knowledge of the affected species
- An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

Overview of Navy Monitoring

The current Navy Fleet monitoring program is composed of a collection of ''range-specific'' monitoring plans, each developed individually as part of the MMPA/ESA authorization processes. These individual plans establish specific monitoring requirements for each range complex based on a set of effort-based metrics (e.g., 20 days of aerial survey). Concurrent with implementation of the initial range-specific monitoring plans, the Navy and NMFS began development of the Integrated Comprehensive Monitoring Program (ICMP). The ICMP has been developed in direct response to Navy permitting requirements established in various MMPA final rules, ESA consultations, Biological Opinions, and applicable regulations. The ICMP is intended to coordinate monitoring efforts across all regions and to allocate the most appropriate level and type of effort for each range complex based on a set of standardized objectives, and in acknowledgement of regional expertise and resource availability. The ICMP is designed to be a flexible, scalable, and adaptable through the adaptive management and strategic planning processes to periodically assess progress and reevaluate objectives. Although the ICMP does not specify actual monitoring field work or projects, it does establish top-level goals that have been developed in coordination with NMFS. As the ICMP is implemented, detailed and specific studies will be developed which support the Navy's top-level monitoring goals. In essence, the ICMP directs that monitoring activities relating to the effects of Navy training and testing activities on marine species should be designed to accomplish one or more of the following top-level goals:

- An increase in our understanding of the likely occurrence of marine mammals and/or ESA-listed marine species in the vicinity of the action (i.e., presence, abundance, distribution, and/or density of species);
- An increase in our understanding of the nature, scope, or context of the likely exposure of marine mammals and/or ESA-listed species to any of the potential stressor(s) associated with the action (e.g., tonal and impulsive sound), through better understanding of one or more of the following: (1) The action and the environment in which it occurs (e.g., sound source characterization, propagation, and ambient noise levels); (2) the affected species (e.g., life history or dive patterns); (3) the likely co-occurrence of marine mammals and/or ESA-listed marine species with the action (in whole or part) associated with specific adverse effects, and/or; (4) the likely biological or behavioral context of exposure to the stressor for the marine mammal and/or ESA-listed marine species (e.g., age class of exposed animals or known pupping, calving or feeding areas);
- An increase in our understanding of how individual marine mammals or ESA-listed marine species respond

(behaviorally or physiologically) to the specific stressors associated with the action (in specific contexts, where possible, e.g., at what distance or received level);

- An increase in our understanding of how anticipated individual responses, to individual stressors or anticipated combinations of stressors, may impact either: (1) the long-term fitness and survival of an individual; or (2) the population, species, or stock (e.g., through effects on annual rates of recruitment or survival);
- An increase in our understanding of the effectiveness of mitigation and monitoring measures;
- A better understanding and record of the manner in which the authorized entity complies with the ITA and Incidental Take Statement;
- An increase in the probability of detecting marine mammals (through improved technology or methods), both specifically within the safety zone (thus allowing for more effective implementation of the mitigation) and in general, to better achieve the above goals; and
- A reduction in the adverse impact of activities to the least practicable level, as defined in the MMPA.

While the ICMP only directly applies to monitoring activities under applicable MMPA and ESA authorizations, it also serves to facilitate coordination among the Navy's marine species monitoring program and the basic and applied research programs discussed in the Ongoing Navy-funded Research section of this document.

An October 2010 Navy monitoring meeting initiated a process to critically evaluate current Navy monitoring plans and begin development of revisions to existing range-specific monitoring plans and associated updates to the ICMP. Discussions at that meeting and through the Navy/NMFS adaptive management process established a way ahead for continued refinement of the Navy's monitoring program. This process included establishing a Scientific Advisory Group (SAG) composed of technical experts to provide objective scientific guidance for Navy consideration. The Navy established the SAG in early 2011 with the initial task of evaluating current Navy monitoring approaches under the ICMP and existing LOAs and developing objective scientific recommendations that would serve as the basis for a Strategic Planning Process for Navy monitoring to be incorporated as a major component of the ICMP. The SAG convened in March 2011, composed of leading academic and civilian scientists with significant expertise in marine species monitoring, acoustics, ecology, and modeling. The SAG's final report laid out both over-arching and range-specific recommendations for the Navy's Marine Species Monitoring program and is available through the Navy's Marine Species Monitoring web portal: *http://www.navymarinespeciesmonitoring.us.*

Adaptive management discussions between the Navy and NMFS established a way ahead for continued refinement of the Navy's monitoring program. Consensus was that the ICMP and associated implementation components would continue the evolution of Navy marine species monitoring towards a single integrated program, incorporate SAG recommendations when appropriate and logistically feasible, and establish a more collaborative framework for evaluating, selecting, and implementing future monitoring across all the Navy range complexes through the adaptive management and strategic planning process.

Past and Current Monitoring in the HSTT Study Area

NMFS has received multiple years' worth of annual exercise and monitoring reports addressing active sonar use and explosive detonations within the HRC, SOCAL Range Complex, and SSTC. The data and information contained in these reports have been considered in developing mitigation and monitoring measures for the proposed training and testing activities within the HSTT Study Area. The Navy's annual exercise and monitoring reports may be viewed at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications* and *http://www.navymarinespeciesmonitoring.us.* NMFS has reviewed these reports and summarized the results, as related to marine mammal monitoring, below.

1. The Navy has shown significant initiative in developing its marine species monitoring program and made considerable progress toward reaching goals and objectives of the ICMP.

2. Observation data from watchstanders aboard navy vessels is generally useful to indicate the presence or absence of marine mammals within the mitigation zones (and sometimes beyond) and to document the implementation of mitigation measures, but does not provide useful species-specific information or behavioral data.

3. Data gathered by experienced marine mammal observers can provide very valuable information at a level of detail not possible with watchstanders.

4. Though it is by no means conclusive, it is worth noting that no instances of obvious behavioral disturbance have been observed by Navy watchstanders or experienced marine mammal observers conducting visual monitoring.

5. Visual surveys generally provide suitable data for addressing questions of distribution and abundance of marine mammals, but are much less effective at providing information on movements and behavior, with a few notable exceptions where sightings are most frequent. For example, Navy-funded focal follows of marine mammals during aerial visual surveys in SOCAL have provided unique new science on regional at-sea marine mammal behavior including group size, travel direction, spatial occurrence within SOCAL, maximum inter-animal dispersal, and behavioral state.

6. Passive acoustics and animal tagging have significant potential for applications addressing animal movements and behavioral response to Navy training activities, but require a longer time horizon and heavy investment in analysis to produce relevant results.

7. NMFS and the Navy should more carefully consider what and how information should be gathered by watchstanders during training exercises and monitoring events, as some reports contain different information, making cross-report comparisons difficult.

Navy-funded monitoring accomplishments in the HRC and SOCAL portions of HSTT from 2009 to 2012 are provided in the Navy's draft 5-year Comprehensive Report, as required by the 2009 rulemakings and available here: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.* Following is a summary of the work conducted:

- Conducted over 4,000 hours of visual survey effort;
- Covered over 64,800 nautical miles of ocean;
- Sighted over 256,000 individual marine mammals;
- Taken over 45,500 digital photos and 32 hours of digital video;
- Attached 70 satellite tracking tags to individual marine mammals; and
- Collected over 25,000 hours of passive acoustic recordings.

Some recent highlights of findings include:

- Increased understanding of Hawaiian monk seal habitat use and behavior throughout the Main Hawaiian Islands;
- Estimated received levels and reconstructions of animal movements during an ASW training event from the bottom-mounted hydrophone arrays at the Pacific Missile Range Facility;

• Increased knowledge of baseline marine mammal behavior information in SOCAL from focal follows of priority cetacean species; and

• Observed northern right whale dolphin mother-calf pairs for the first time since SOCAL aerial monitoring surveys began in fall 2008.

Data collection and analysis within these range complexes is ongoing. From 2009 to 2011, Navy lookouts aboard Navy ships reported 1,262 sightings for an estimated 12,875 marine mammals within the HSTT Study Area. These observations were mainly during major at-sea training events and there were no reported observations of adverse reactions by marine mammals and no dead or injured animals reported associated with Navy training activities.

Proposed Monitoring for the HSTT Study Area

Based on discussions between the Navy and NMFS, future monitoring would address the ICMP top-level goals through a collection of specific regional and ocean basin studies based on scientific objectives. Quantitative metrics of monitoring effort (e.g., 20 days of aerial survey) would not be a specific requirement. The adaptive management process and reporting requirements would serve as the basis for evaluating performance and compliance, primarily considering the quality of the work and results produced, as well as peer review and publications, and public dissemination of information, reports, and data. The strategic planning process would be used to set intermediate scientific objectives, identify potential species of interest at a regional scale, and evaluate and select specific monitoring projects to fund or continue supporting for a given fiscal year. The strategic planning process would also address relative investments to different range complexes based on goals across all range complexes, and monitoring would leverage multiple techniques for data acquisition and analysis whenever possible.

Ongoing Navy Research

Overview

The Navy is one of the world's leading organizations in assessing the effects of human activities on the marine environment, and provides a significant amount of funding and support to marine research, outside of the monitoring required by their incidental take authorizations. They also develop approaches to ensure that these resources are minimally impacted by current and future Navy operations. Navy scientists work cooperatively with other government researchers and scientists, universities, industry, and non-governmental conservation organizations in collecting, evaluating, and modeling information on marine resources, including working towards a better understanding of marine mammals and sound. From 2004 to 2012, the Navy has provided over $230 million for marine species research. The Navy sponsors 70 percent of all U.S. research concerning the effects of human-generated sound on marine mammals and 50 percent of such research conducted worldwide. Major topics of Navy-supported marine species research directly applicable to proposed activities within the HSTT Study Area include the following:

• Better understanding of marine species distribution and important habitat areas;

• Developing methods to detect and monitor marine species before and during training and testing activities;

• Better understanding the impacts of sound on marine mammals, sea turtles, fish, and birds; and

• Developing tools to model and estimate potential impacts of sound.

It is imperative that the Navy's research and development (R&D) efforts related to marine mammals are conducted in an open, transparent manner with validated study needs and requirements. The goal of the Navy's R&D program is to enable collection and publication of scientifically valid research as well as development of techniques and tools for Navy, academic, and commercial use. The two Navy organizations that account for most funding and oversight of the Navy marine mammal research program are the Office of Naval Research (ONR) Marine Mammals and Biology Program, and the Office of the Chief of Naval Operations (CNO) Energy and Environmental Readiness Division (N45) Living Marine Resources (LMR) Program. The primary focus of these programs has been on understanding the effects of sound on marine mammals, including physiological, behavioral and ecological effects.

The ONR Marine Mammals and Biology Program supports basic and applied research and technology development related to understanding the effects of sound on marine mammals, including physiological, behavioral, ecological, and population-level effects. Current program thrusts include, but are not limited to:

• Monitoring and detection;

• Integrated ecosystem research including sensor and tag development;

• Effects of sound on marine life including hearing, behavioral response studies, diving and stress physiology, and Population Consequences of Acoustic Disturbance (PCAD); and

• Models and databases for environmental compliance.

To manage some of the Navy's marine mammal research programmatic elements, OPNAV N45 developed in 2011 a new Living Marine Resources (LMR) Research and Development Program. The mission of the LMR program is to develop, demonstrate, and assess information and technology solutions to protect living marine resources by minimizing the environmental risks of Navy at-sea training and testing activities while preserving core Navy readiness capabilities. This mission is accomplished by:

• Improving knowledge of the status and trends of marine species of concern and the ecosystems of which they are a part;

• Developing the scientific basis for the criteria and thresholds to measure the effects of Navy generated sound;

• Improving understanding of underwater sound and sound field characterization unique to assessing the biological consequences resulting from underwater sound (as opposed to tactical applications of underwater sound or propagation loss modeling for military communications or tactical applications); and

• Developing technologies and methods to monitor and, where possible, mitigate biologically significant consequences to living marine resources resulting from naval activities, emphasizing those consequences that are most likely to be biologically significant.

The program is focused on three primary objectives that influence program management priorities and directly affect the program's success in accomplishing its mission:

1. Collect, Validate, and Rank R&D Needs: Expand awareness of R&D program opportunities within the Navy marine resource community to encourage and facilitate the submittal of well-defined and appropriate needs statements.

2. Address High Priority Needs: Ensure that program investments and the resulting projects maintain a direct and consistent link to the defined user needs.

3. Transition Solutions and Validate Benefits: Maximize the number of program-derived solutions that are successfully transitioned to the Fleet and system commands.

The LMR program primarily invests in the following areas:

- Developing Data to Support Risk Threshold Criteria;
- Improved Data Collection on Protected Species, Critical Habitat within Navy Ranges;
- New Monitoring and Mitigation Technology Demonstrations;
- Database and Model Development; and
- Education and Outreach, Emergent Opportunities.

The Navy has also developed the technical reports and supporting data used for analysis in the HSTT DEIS/OEIS and this proposed rule, which include the Navy Marine Species Density Database, Acoustic Criteria and Thresholds, and Determination of Acoustic Effects on Marine Mammals and Sea Turtles. Furthermore, research cruises by NMFS and by academic institutions have received funding from the Navy. For instance, LMR currently supports the Marine Mammal Monitoring on Ranges program at Pacific Missile Range Facility on Kauai and, along with ONR, the multi-year Southern California Behavioral Response Study (*http://www.socal-brs.org*). All of this research helps in understanding the marine environment and the effects that may arise from underwater noise in oceans. Further, NMFS is working on a long-term stranding study that will be supported by the Navy by way of a funding and information sharing component (see below).

Navy Research and Development

Navy Funded—Both OPNAV N45 and ONR R&D programs have projects ongoing within the HSTT Study Area. Some data and results from these R&D projects are summarized in the Navy's annual range complex monitoring reports, and available on NMFS' Web site (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*) and the Fleet's new marine species monitoring Web site (*http://www.navymarinespeciesmonitoring.us*). In addition, the Navy's Fleet monitoring is coordinated with R&D monitoring in a given region to leverage research objectives, assets, and studies where possible under the Navy's Integrated Comprehensive Monitoring Program.

Below are some current Navy R&D funded projects or joint Navy-NMFS/academic funded projects through 2012 in the HSTT Study Area. Southern California:

- Behavioral Response Study (multiple academic, NMFS, contract scientists, Navy science organizations, and other collaborators; $1.8M funded by OPNAV N45 and ONR)
- Small Boat Based Marine Mammal Surveys in Southern California (Scripps Institute of Oceanography, University of California San Diego; $400K funded by OPNAV N45)
- Distribution and Demographics of Marine Mammals in SOCAL Through Photo-Identification, Genetics, and Satellite Telemetry (Cascadia Research Collective; $260K funded by OPNAV N45)
- Blue and Humpback Acoustic Survey Methods (Southwest Fisheries Science Center, National Marine Fisheries Service Fisheries Science Center, $160K funded by OPNAV N45)
- Tracking Marine Mammals on Southern California Offshore ASW Range (SOAR) using Marine Mammal Monitoring on Navy Ranges (M3R) (Naval Undersea Warfare Center Newport; $500K funded by OPNAV N45)

Hawaii:

- Passive Acoustic Methods for Tracking Marine Mammals Using Widely-Spaced Bottom Mounted Hydrophones (University of Hawaii; funded by ONR)
- Satellite Tagging Odontocetes in the Navy's Pacific Missile Range Facility (PMRF) and Kauai (Cascadia Research Collective; $150K funded by OPNAV N45)
- Tracking Marine Mammals on PMRF using Marine Mammal Monitoring on Navy Ranges (M3R) System (Naval Undersea Warfare Center Newport; $290K funded by OPNAV N45)
- Remote Monitoring of Dolphins and Whales in the High Naval Activity Areas in Hawaiian Waters (Hawaii Institute of Marine Biology, funded by ONR)

The integration between the Navy's new LMR R&D program and related fleet and Systems Command HSTT monitoring would continue and improve over the 5-year period with applicable R&D results presented in HSTT annual monitoring reports.

Other National Department of Defense Funded Initiatives—The Strategic Environmental Research and Development Program (SERDP) and Environmental Security Technology Certification Program (ESTCP) are the Department of Defense's environmental research programs, harnessing the latest science and technology to improve environmental performance, reduce costs, and enhance and sustain mission capabilities. The programs respond to environmental technology requirements common to all military services, complementing the services' research programs. SERDP and ESTCP promote partnerships and collaboration among academia, industry, the military services, and other federal agencies. They are independent programs managed from a joint office to coordinate the full spectrum of efforts, from basic and applied research to field demonstration and validation. Beginning in March 2012, an ESTCP project that might eventually be applicable to future Navy training and testing is the Biodegradable Sonobuoy Decelerators. More information about this project can be found at: *http://www.serdp.org/Program-Areas/Weapons-Systems-and-Platforms/Waste-Reduction-and-Treatment-in-DoD-Operations/WP-201222/WP-201222/(language)/eng-US).*

Adaptive Management

The final regulations governing the take of marine mammals incidental to Navy training and testing activities in the HSTT Study Area would contain an adaptive management component carried over from previous authorizations. Although better than 5 years ago, our understanding of the effects of Navy training and testing activities (e.g., MFAS/HFAS, underwater detonations) on marine mammals is still relatively limited, and yet the science in this field is evolving fairly quickly. These circumstances make the inclusion of an adaptive management component both valuable and necessary within the context of 5-year regulations for activities that have been associated with marine mammal mortality in certain circumstances and locations.

The reporting requirements associated with this proposed rule are designed to provide NMFS with monitoring data from the previous year to allow NMFS to consider whether any changes are appropriate. NMFS and the Navy would meet to discuss the monitoring reports, Navy R&D developments, and current science and whether mitigation or monitoring modifications are appropriate. The use of adaptive management allows NMFS to consider new information from different sources to determine (with input from the Navy regarding practicability) on an annual or biennial basis if mitigation or monitoring measures should be modified (including additions or deletions). Mitigation measures could be modified if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable.

The following are some of the possible sources of applicable data to be considered through the adaptive

management process: (1) Results from monitoring and exercises reports, as required by MMPA authorizations; (2) compiled results of Navy funded R&D studies; (3) results from specific stranding investigations; (4) results from general marine mammal and sound research; and (5) any information which reveals that marine mammals may have been taken in a manner, extent, or number not authorized by these regulations or subsequent LOAs.

The Navy is currently establishing a strategic planning process under the ICMP in coordination with NMFS. The objective of the strategic planning process is to guide the continued evolution of Navy marine species monitoring towards a single integrated program, incorporating expert review and recommendations, and establishing a more structured and collaborative framework for evaluating, selecting, and implementing future monitoring across the all Navy range complexes. The Strategic Plan is intended to be a primary component of the ICMP and provide a ''vision'' for navy monitoring across geographic regions—serving as guidance for determining how to most efficiently and effectively invest the marine species monitoring resources to address ICMP top-level goals and satisfy MMPA monitoring requirements. This process is being designed to integrate various elements including:

- ICMP top-level goals;
- SAG recommendations;
- Integration of regional scientific expert input;
- Ongoing adaptive management review dialogue between NMFS and the Navy;
- Lessons learned from past and future monitoring at Navy training and testing ranges; and
- Leveraged research and lessons learned from other Navy funded marine science programs.

Reporting

In order to issue an ITA for an activity, section 101(a)(5)(A) of the MMPA states that NMFS must set forth ''requirements pertaining to the monitoring and reporting of such taking''. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring. Some of the reporting requirements are still in development and the final rulemaking may contain additional details not contained here. Additionally, proposed reporting requirements may be modified, removed, or added based on information or comments received during the public comment period. Reports from individual monitoring events, results of analyses, publications, and periodic progress reports for specific monitoring projects would be posted to the Navy's Marine Species Monitoring web portal: *http://www.navymarinespeciesmonitoring.us.* Currently, there are several different reporting requirements pursuant to these proposed regulations:

General Notification of Injured or Dead Marine Mammals

Navy personnel would ensure that NMFS (the appropriate Regional Stranding Coordinator) is notified immediately (or as soon as clearance procedures allow) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The Navy would provide NMFS with species identification or a description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photographs or video (if available). The HSTT Stranding Response Plan contains further reporting requirements for specific circumstances (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

Annual Monitoring and Exercise Reports

As noted above, reports from individual monitoring events, results of analyses, publications, and periodic progress reports for specific monitoring projects would be posted to the Navy's Marine Species Monitoring web portal as they become available. Progress and results from all monitoring activity conducted within the HSTT Study Area, as well as required Major Training Event exercise activity, would be summarized in an annual report. A draft of this report would be submitted to NMFS for review by April 15 of each year. NMFS would review the report and provide comments for incorporation within 3 months.

Comprehensive Monitoring and Exercise Summary Report

The Navy would submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal monitoring and Major Training Event exercise information gathered during training and testing exercises for which individual annual reports are required under the proposed regulations. This report would be submitted at the end of the fourth year of the rule (December 2018), covering activities that have occurred through June 1, 2018. The Navy will respond to NMFS comments on the draft comprehensive report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not provide comments.

Estimated Take of Marine Mammals

In the potential effects section, NMFS' analysis identified the lethal responses, physical trauma, sensory impairment (PTS, TTS, and acoustic masking), physiological responses (particular stress responses), and behavioral responses that could potentially result from exposure to MFAS/HFAS or underwater explosive detonations. In this section, we will relate the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA regulatory definitions of Level A and Level B Harassment and attempt to quantify the effects that might occur from the proposed training and testing activities in the Study Area.

As mentioned previously, behavioral responses are context-dependent, complex, and influenced to varying degrees by a number of factors other than just received level. For example, an animal may respond differently to a sound emanating from a ship that is moving towards the animal than it would to an identical received level coming from a vessel that is moving away, or to a ship traveling at a different speed or at a different distance from the animal. At greater distances, though, the nature of vessel movements could also potentially not have any effect on the animal's response to the sound. In any case, a full description of the suite of factors that elicited a behavioral response would require a mention of the vicinity, speed and movement of the vessel, or other factors. So, while sound sources and the received levels are the primary focus of the analysis and those that are laid out quantitatively in the regulatory text, it is with the understanding that other factors related to the training are sometimes contributing to the behavioral responses of marine mammals, although they cannot be quantified.

Definition of Harassment

As mentioned previously, with respect to military readiness activities, section 3(18)(B) of the MMPA defines ''harassment'' as: (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely

to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Level B Harassment

Of the potential effects that were described earlier in this document, the following are the types of effects that fall into the Level B Harassment category:

Behavioral Harassment—Behavioral disturbance that rises to the level described in the definition above, when resulting from exposures to non-impulsive or impulsive sound, is considered Level B Harassment. Some of the lower level physiological stress responses discussed earlier would also likely co-occur with the predicted harassments, although these responses are more difficult to detect and fewer data exist relating these responses to specific received levels of sound. When Level B Harassment is predicted based on estimated behavioral responses, those takes may have a stress-related physiological component as well.

Earlier in this document, we described the Southall *et al.,* (2007) severity scaling system and listed some examples of the three broad categories of behaviors: 0–3 (Minor and/or brief behaviors); 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival); 7–9 (Behaviors considered likely to affect the aforementioned vital rates). Generally speaking, MMPA Level B Harassment, as defined in this document, would include the behaviors described in the 7–9 category, and a subset, dependent on context and other considerations, of the behaviors described in the 4–6 category. Behavioral harassment does not generally include behaviors ranked 0–3 in Southall *et al.,* (2007).

Acoustic Masking and Communication Impairment—Acoustic masking is considered Level B Harassment as it can disrupt natural behavioral patterns by interrupting or limiting the marine mammal's receipt or transmittal of important information or environmental cues.

Temporary Threshold Shift (TTS)—As discussed previously, TTS can affect how an animal behaves in response to the environment, including conspecifics, predators, and prey. The following physiological mechanisms are thought to play a role in inducing auditory fatigue: effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells; residual muscular activity in the middle ear, displacement of certain inner ear membranes; increased blood flow; and post-stimulatory reduction in both efferent and sensory neural output. Ward (1997) suggested that when these effects result in TTS rather than PTS, they are within the normal bounds of physiological variability and tolerance and do not represent a physical injury. Additionally, Southall *et al.* (2007) indicate that although PTS is a tissue injury, TTS is not because the reduced hearing sensitivity following exposure to intense sound results primarily from fatigue, not loss, of cochlear hair cells and supporting structures and is reversible. Accordingly, NMFS classifies TTS (when resulting from exposure to sonar and other active acoustic sources and explosives and other impulsive sources) as Level B Harassment, not Level A Harassment (injury).

Level A Harassment

Of the potential effects that were described earlier, following are the types of effects that fall into the Level A Harassment category:

Permanent Threshold Shift (PTS)—PTS (resulting either from exposure to MFAS/HFAS or explosive detonations) is irreversible and considered an injury. PTS results from exposure to intense sounds that cause a permanent loss of inner or outer cochlear hair cells or exceed the elastic limits of certain tissues and membranes in the middle and inner ears and result in changes in the chemical composition of the inner ear fluids.

Tissue Damage due to Acoustically Mediated Bubble Growth—A few theories suggest ways in which gas bubbles become enlarged through exposure to intense sounds (MFAS/HFAS) to the point where tissue damage results. In rectified diffusion, exposure to a sound field would cause bubbles to increase in size. A short duration of sonar pings (such as that which an animal exposed to MFAS would be most likely to encounter) would not likely be long enough to drive bubble growth to any substantial size. Alternately, bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. The degree of supersaturation and exposure levels observed to cause microbubble destabilization are unlikely to occur, either alone or in concert because of how close an animal would need to be to the sound source to be exposed to high enough levels, especially considering the likely avoidance of the sound source and the required mitigation. Still, possible tissue damage from either of these processes would be considered an injury.

Tissue Damage due to Behaviorally Mediated Bubble Growth—Several authors suggest mechanisms in which marine mammals could behaviorally respond to exposure to MFAS/HFAS by altering their dive patterns (unusually rapid ascent, unusually long series of surface dives, etc.) in a manner that might result in unusual bubble formation or growth ultimately resulting in tissue damage. In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. There is considerable disagreement among scientists as to the likelihood of this phenomenon (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Although it has been argued that traumas from recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.,* 2003; Fernandez *et al.,* 2005), nitrogen bubble formation as the cause of the traumas has not been verified. If tissue damage does occur by this phenomenon, it would be considered an injury.

Physical Disruption of Tissues Resulting From Explosive Shock Wave—Physical damage of tissues resulting from a shock wave (from an explosive detonation) is classified as an injury. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000) and gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill, 1978; Yelverton *et al.,* 1973). Nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Severe damage (from the shock wave) to the ears can include tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear.

Vessel or Ordnance Strike—Vessel strike or ordnance strike associated with the specified activities would be considered Level A Harassment, serious injury, or mortality.

Take Criteria

For the purposes of an MMPA authorization, three types of take are identified: Level B Harassment; Level A Harassment; and mortality (or serious injury leading to mortality). The categories of marine mammal responses (physiological and behavioral) that fall

into the two harassment categories were described in the previous section.

Because the physiological and behavioral responses of the majority of the marine mammals exposed to non-impulse and impulse sounds cannot be easily detected or measured, and because NMFS must authorize take prior to the impacts to marine mammals, a method is needed to estimate the number of individuals that will be taken, pursuant to the MMPA, based on the proposed action. To this end, NMFS developed acoustic criteria that estimate at what received level (when exposed to non-impulse or impulse sounds) Level B Harassment and Level A Harassment of marine mammals would occur. The acoustic criteria for non-impulse and impulse sounds are discussed below.

Level B Harassment Threshold (TTS)—Behavioral disturbance, acoustic masking, and TTS are all considered Level B Harassment. Marine mammals would usually be behaviorally disturbed at lower received levels than those at which they would likely sustain TTS, so the levels at which behavioral disturbance are likely to occur is considered the onset of Level B Harassment. The behavioral responses of marine mammals to sound are variable, context specific, and, therefore, difficult to quantify (see Risk Function section, below). Alternately, TTS is a physiological effect that has been studied and quantified in laboratory conditions. Because data exist to support an estimate of the received levels at which marine mammals will incur TTS, NMFS uses an acoustic criteria to estimate the number of marine mammals that might sustain TTS. TTS is a subset of Level B Harassment (along with sub-TTS behavioral harassment) and we are not specifically required to estimate those numbers; however, the more specifically we can estimate the affected marine mammal responses, the better the analysis.

Level A Harassment Threshold (PTS)—For acoustic effects, because the tissues of the ear appear to be the most susceptible to the physiological effects of sound, and because threshold shifts tend to occur at lower exposures than other more serious auditory effects, NMFS has determined that PTS is the best indicator for the smallest degree of injury that can be measured. Therefore, the acoustic exposure associated with onset-PTS is used to define the lower limit of Level A Harassment.

PTS data do not currently exist for marine mammals and are unlikely to be obtained due to ethical concerns. However, PTS levels for these animals may be estimated using TTS data from marine mammals and relationships between TTS and PTS that have been determined through study of terrestrial mammals.

We note here that behaviorally mediated injuries (such as those that have been hypothesized as the cause of some beaked whale strandings) could potentially occur in response to received levels lower than those believed to directly result in tissue damage. As mentioned previously, data to support a quantitative estimate of these potential effects (for which the exact mechanism is not known and in which factors other than received level may play a significant role) does not exist. However, based on the number of years (more than 60) and number of hours of MFAS per year that the U.S. (and other countries) has operated compared to the reported (and verified) cases of associated marine mammal strandings, NMFS believes that the probability of these types of injuries is very low. Tables 13 and 14 provide a summary of non-impulsive thresholds to TTS and PTS for marine mammals. A detailed explanation of how these thresholds were derived is provided in the HSTT DEIS/OEIS Criteria and Thresholds Technical Report (*http://hstteis.com/DocumentsandReferences/HSTTDocuments/SupportingTechnicalDocuments.aspx*) and summarized in Chapter 6 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

TABLE 13—ONSET TTS AND PTS THRESHOLDS FOR NON-IMPULSE SOUND

Group	Species	Onset TTS	Onset PTS
Low-Frequency Cetaceans	All mysticetes	178 dB re 1μPa2-sec(LF_{II})	198 dB re 1μPa2-sec(LF_{II}).
Mid-Frequency Cetaceans	Most delphinids, beaked whales, medium and large toothed whales.	178 dB re 1μPa2-sec(MF_{II})	198 dB re 1μPa2-sec(MF_{II}).
High-Frequency Cetaceans	Porpoises, Kogia spp.	152 dB re 1μPa2-sec(HF_{II})	172 dB re 1μPa2-secSEL (HF_{II}).
Phocidae In-water	Harbor, Hawaiian monk, elephant seals.	183 dB re 1μPa2-sec(P_{WI})	197 dB re 1μPa2-sec(P_{WI}).
Otariidae & Obodenidae In-water	Sea lions and fur seals	206 dB re 1μPa2-sec(O_{WI})	220 dB re 1μPa2-sec(O_{WI}).
Mustelidae In-water	Sea otters.		

LF_{II}, MF_{II}, HF_{II}: New compound Type II weighting functions; P_{WI}, O_{WI}: Original Type I (Southall *et al.* 2007) for pinniped and mustelid in water.

TABLE 14—IMPULSIVE SOUND EXPLOSIVE CRITERIA AND THRESHOLDS FOR PREDICTING INJURY AND MORTALITY

Group	Species	Slight injury			Mortality
		PTS	GI Tract	Lung	
Low-frequency Cetaceans	All mysticetes	187 dB SEL (LF_{II}) or 230 dB Peak SPL.	237 dB SPL or 104 psi.	Equation 1	Equation 2.
Mid-frequency Cetaceans	Most delphinids, medium and large toothed whales.	187 dB SEL (MF_{II}) or 230 dB Peak SPL.			
High-frequency Cetaceans	Porpoises and *Kogia* spp	161 dB SEL (HF_{II}) or 201 dB Peak SPL.			
Phocidae	Hawaiian monk, elephant, and harbor seal.	192 dB SEL (P_{WI}) or 218 dB Peak SPL.			
Otariidae	Sea lions and fur seals	215 dB SEL (O_{WI}) or 218 dB Peak SPL.			
Mustelidae	Sea otters.				

Equation 1:

$= 39.1M^{1/3} (1+[D_{Rm}/10.081])^{1/2}$ Pa − sec

Equation 2:

$= 91.4M^{1/3} (1+[D_{Rm}/10.081])^{1/2}$ Pa − sec

Where: M = mass of the animals in kg.

D_{Rm} = depth of the receiver (animal) in meters.

Level B Harassment Risk Function (Behavioral Harassment)—In 2006, NMFS issued the first MMPA authorization to allow the take of marine mammals incidental to MFAS (to the Navy for RIMPAC). For that authorization, NMFS used 173 dB SEL as the criterion for the onset of behavioral harassment (Level B Harassment). This type of single number criterion is referred to as a step function, in which (in this example) all animals estimated to be exposed to received levels above 173 db SEL would be predicted to be taken by Level B Harassment and all animals exposed to less than 173 dB SEL would not be taken by Level B Harassment. As mentioned previously, marine mammal behavioral responses to sound are highly variable and context specific (affected by differences in acoustic conditions; differences between species and populations; differences in gender, age, reproductive status, or social behavior; or the prior experience of the individuals), which does not support the use of a step function to estimate behavioral harassment.

Unlike step functions, acoustic risk continuum functions (which are also called ''exposure-response functions'' or ''dose-response functions'' in other risk assessment contexts) allow for probability of a response that NMFS would classify as harassment to occur over a range of possible received levels (instead of one number) and assume that the probability of a response depends first on the ''dose'' (in this case, the received level of sound) and that the probability of a response increases as the ''dose'' increases (see Figure 1a). In January 2009, NMFS issued three final rules governing the incidental take of marine mammals (within Navy's HRC, SOCAL, and Atlantic Fleet Active Sonar Training (AFAST)) that used a risk continuum to estimate the percent of marine mammals exposed to various levels of MFAS that would respond in a manner NMFS considers harassment.

The Navy and NMFS have previously used acoustic risk functions to estimate the probable responses of marine mammals to acoustic exposures for other training and research programs. Examples of previous application include the Navy FEISs on the SURTASS LFA sonar (U.S. Department of the Navy, 2001c); the North Pacific Acoustic Laboratory experiments conducted off the Island of Kauai (Office of Naval Research, 2001); and the Supplemental EIS for SURTASS LFA sonar (U.S. Department of the Navy, 2007d). As discussed earlier, factors other than received level (such as distance from or bearing to the sound source, context of animal at time of exposure) can affect the way that marine mammals respond; however, data to support a quantitative analysis of those (and other factors) do not currently exist. NMFS will continue to modify these criteria as new data become available and can be appropriately and effectively incorporated.

The particular acoustic risk functions developed by NMFS and the Navy (see Figures 1a and 1b) estimate the probability of behavioral responses to MFAS/HFAS (interpreted as the percentage of the exposed population) that NMFS would classify as harassment for the purposes of the MMPA given exposure to specific received levels of MFAS/HFAS. The mathematical function (below) underlying this curve is a cumulative probability distribution adapted from a solution in Feller (1968) and was also used in predicting risk for the Navy's SURTASS LFA MMPA authorization as well.

$$R = \frac{1-\left(\frac{L-B}{K}\right)^{-A}}{1-\left(\frac{L-B}{K}\right)^{-2A}}$$

Where:

R = Risk (0 − 1.0)

L = Received level (dB re: 1 μPa).

B = Basement received level = 120 dB re: 1 μPa.

K = Received level increment above B where 50-percent risk = 45 dB re: 1 μPa.

A = Risk transition sharpness parameter = 10 (odontocetes and pinnipeds) or 8 (mysticetes).

Detailed information on the above equation and its parameters is available in the HSTT DEIS/OEIS and previous Navy documents listed above.

The inclusion of a special behavioral response criterion for beaked whales of the family Ziphiidae is new to these criteria. It has been speculated that beaked whales might have unusual sensitivities to sonar sound due to their likelihood of stranding in conjunction with MFAS use, even in areas where other species were more abundant (D'Amico *et al.* 2009), but there were not sufficient data to support a separate treatment for beaked whales until recently. With the recent publication of results from Blainville's beaked whale monitoring and experimental exposure studies on the instrumented Atlantic Undersea Test and Evaluation Center range in the Bahamas (McCarthy *et al.* 2011; Tyack *et al.* 2011), there are now statistically strong data suggesting that beaked whales tend to avoid both actual naval MFAS in real anti-submarine training scenarios as well as sonar-like signals and other signals used during controlled sound exposure studies in the same area. An unweighted 140 dB re 1 μPa sound pressure level threshold has been adopted by the Navy for significant behavioral effects for all beaked whales (family: Ziphiidae).

If more than one explosive event occurs within any given 24-hour period within a training or testing event, behavioral criteria are applied to predict the number of animals that may be taken by Level B Harassment. For multiple explosive events the behavioral threshold used in this analysis is 5 dB less than the TTS onset threshold (in sound exposure level). This value is derived from observed onsets of behavioral response by test subjects (bottlenose dolphins) during non-impulse TTS testing (Schlundt *et al.* 2000). Some multiple explosive events, such as certain naval gunnery exercises, may be treated as a single impulsive event because a few explosions occur closely spaced within a very short period of time (a few seconds). For single impulses at received sound levels below hearing loss thresholds, the most likely behavioral response is a brief alerting or orienting response. Since no further sounds follow the initial brief impulses, Level B take in the form of behavioral harassment beyond that associated with potential TTS would not be expected to occur. Explosive criteria and thresholds are summarized in Table 15 and further detailed in the Navy's LOA application.

Since impulse events can be quite short, it may be possible to accumulate multiple received impulses at sound pressure levels considerably above the energy-based criterion and still not be considered a behavioral take. The Navy treats all individual received impulses as if they were one second long for the purposes of calculating cumulative sound exposure level for multiple impulse events. For example, five air gun impulses, each 0.1 second long, received at 178 dB sound pressure level would equal a 175 dB sound exposure level, and would not be predicted as leading to a take. However, if the five 0.1 second pulses are treated as a 5 second exposure, it would yield an adjusted value of approximately 180 dB, exceeding the threshold. For impulses

associated with explosions that have durations of a few microseconds, this assumption greatly overestimates effects based on sound exposure level metrics such as TTS and PTS and behavioral responses. Appropriate weighting values will be applied to the received impulse in one-third octave bands and the energy summed to produce a total weighted sound exposure level value. For impulsive behavioral criteria, the Navy's new weighting functions (detailed in the LOA application) are applied to the received sound level before being compared to the threshold.

TABLE 15— EXPLOSIVE CRITERIA AND THRESHOLDS

Group	Species	Slight injury			Mortality
		PTS	GI Tract	Lung	
Low Frequency Cetaceans ..	All mysticetes	187 dB SEL (LF_{II}) or 230 dB Peak SPL.	237 dB SPL or 104 psi.	Equation 1	Equation 2.
Mid-Frequency Cetaceans ...	Most delphinids, medium and large toothed whales.	187 dB SEL (MF_{II}) or 230 dB Peak SPL.			
High Frequency Cetaceans	Porpoises and Kogia spp	161 dB SEL (HF_{II}) or 201dB Peak SPL.			
Phocidae	Hawaiian monk, elephant, and harbor seal.	192 dB SEL (P_{WI}) or 218 dB Peak SPL.			
Otariidae	Sea lions and Fur seals	215 dB SEL (O_{WI}) or 218 dB Peak SPL.			
Mustelidae	Sea Otters.				

$$= 39.1M^{1/3}\left(1+\frac{D_{Rm}}{10.081}\right)^{1/2} Pa-\sec$$

$$= 91.4M^{1/3}\left(1+\frac{D_{Rm}}{10.081}\right)^{1/2} Pa-\sec$$

Existing NMFS criteria was applied to sounds generated by pile driving and airguns (Table 16).

TABLE 16—THRESHOLDS FOR PILE DRIVING AND AIRGUNS

Species groups	Underwater vibratory pile driving criteria (sound pressure level, dB re 1 μPa)		Underwater impact pile driving and airgun criteria (sound pressure level, dB re 1 μPa)	
	Level A injury threshold	Level B disturbance threshold	Level A injury threshold	Level B disturbance threshold
Cetaceans (whales, dolphins, porpoises)	180 dB rms	120 dB rms	180 dB rms	160 dB rms.
Pinnipeds (seals)	190 dB rms	120 dB rms	190 dB rms	160 dB rms.

Quantitative Modeling for Impulsive and Non-Impulsive Sound

The Navy performed a quantitative analysis to estimate the number of marine mammals that could be harassed by acoustic sources or explosives used during Navy training and testing activities. Inputs to the quantitative analysis included marine mammal density estimates; marine mammal depth occurrence distributions; oceanographic and environmental data; marine mammal hearing data; and criteria and thresholds for levels of potential effects. The quantitative analysis consists of computer-modeled estimates and a post-model analysis to determine the number of potential mortalities and harassments. The model calculates sound energy propagation from sonars, other active acoustic sources, and explosives during naval activities; the sound or impulse received by animat dosimeters representing marine mammals distributed in the area around the modeled activity; and whether the sound or impulse received by a marine mammal exceeds the thresholds for effects. The model estimates are then further analyzed to consider animal avoidance and implementation of mitigation measures, resulting in final estimates of effects due to Navy training and testing. This process results in a reduction to take numbers and is detailed in Chapter 6 (section 6.3) of the Navy's application.

A number of computer models and mathematical equations can be used to predict how energy spreads from a sound source (e.g., sonar or underwater detonation) to a receiver (e.g., dolphin or sea turtle). Basic underwater sound models calculate the overlap of energy and marine life using assumptions that account for the many, variable, and often unknown factors that can greatly influence the result. Assumptions in previous Navy models have intentionally erred on the side of overestimation when there are unknowns or when the addition of other variables was not likely to substantively change the final analysis. For example, because the ocean environment is extremely dynamic and information is often limited to a synthesis of data gathered over wide areas and requiring many years of research, known information tends to be an average of a seasonal or annual variation. The Equatorial Pacific El Nino disruption of the ocean-atmosphere system is an example of dynamic change where unusually warm ocean temperatures are likely to redistribute marine life and alter the propagation of underwater sound energy. Previous Navy modeling therefore made some assumptions

indicative of a maximum theoretical propagation for sound energy (such as a perfectly reflective ocean surface and a flat seafloor). More complex computer models build upon basic modeling by factoring in additional variables in an effort to be more accurate by accounting for such things as bathymetry and an animal's likely presence at various depths.

The Navy has developed a set of data and new software tools for quantification of estimated marine mammal impacts from Navy activities. This new approach is the resulting evolution of the basic model previously used by the Navy and reflects a more complex modeling approach as described below. Although this more complex computer modeling approach accounts for various environmental factors affecting acoustic propagation, the current software tools do not consider the likelihood that a marine mammal would attempt to avoid repeated exposures to a sound or avoid an area of intense activity where a training or testing event may be focused. Additionally, the software tools do not consider the implementation of mitigation (e.g., stopping sonar transmissions when a marine mammal is within a certain distance of a ship or range clearance prior to detonations). In both of these situations, naval activities are modeled as though an activity would occur regardless of proximity to marine mammals and without any horizontal movement by the animal away from the sound source or human activities (e.g., without accounting for likely animal avoidance). Therefore, the final step of the quantitative analysis of acoustic effects is to consider the implementation of mitigation and the possibility that marine mammals would avoid continued or repeated sound exposures.

The quantified results of the marine mammal acoustic effects analysis presented in the Navy's LOA application differ from the quantified results presented in the HSTT DEIS/OEIS. Presentation of the results in this new manner for MMPA, ESA, and other regulatory analyses is well within the framework of the previous NEPA analyses presented in the DEIS. The differences are due to three main factors: (1) Administrative corrections to the modeling inputs for training and testing; (2) use of a more accurate seasonal density for the species (short-beaked common dolphins) having the highest abundance of any marine mammal in the Study Area; and (3) additional post-model quantification to further refine the numerical analysis of acoustic effects so as to include animal avoidance of sound sources, avoidance of areas of activity before use of a sound source or explosive, and implementation of mitigation. This additional quantification was in direct response to public comments received on the HSTT DEIS/OEIS with regard to a somewhat universal misunderstanding of the numbers presented as modeling results. These comments indicated that many readers believed the modeling effects numbers presented in the tables were the entire acoustic impact analysis. Furthermore, it was clear that these same readers had missed the critical subsequent qualitative analysis required to accurately interpret those numbers since the model does not account for animal avoidance of repeated explosive exposures, movement, or standard Navy mitigations. In response to these comments, the numbers presented in Navy's LOA application will be reflected in the HSTT FEIS/OEIS to more fully quantify the analyzed effects to marine mammals. The differences between the HSTT DEIS/OEIS and the Navy's LOA application reflect reductions in the analyzed mortality takes, Level A takes, and Level B takes. The Navy has advised NMFS that all comments received on the proposed rule that address (1) Administrative corrections to the modeling inputs for training and testing; (2) use of more accurate seasonal density data; and (3) post-model quantification based on animal avoidance of sound sources and mitigation will be reviewed and addressed by the Navy in the HSTT FEIS/OEIS.

The steps of the quantitative analysis of acoustic effects, the values that went into the Navy's model, and the resulting ranges to effects are detailed in Chapter 6 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

Take Request

The HSTT DEIS/OEIS considered all training and testing activities proposed to occur in the Study Area that have the potential to result in the MMPA defined take of marine mammals. The stressors associated with these activities included the following:

- Acoustic (sonar and other active non-impulse sources, explosives, pile driving, swimmer defense airguns, weapons firing, launch and impact noise, vessel noise, aircraft noise);
- Energy (electromagnetic devices);
- Physical disturbance or strikes (vessels, in-water devices, military expended materials, seafloor devices);
- Entanglement (fiber optic cables, guidance wires, parachutes);
- Ingestion (munitions, military expended materials other than munitions); and
- Indirect stressors (risk to monk seals from Navy California sea lions from the transmission of disease or parasites).

The Navy determined, and NMFS agrees, that three stressors could potentially result in the incidental taking of marine mammals from training and testing activities within the Study Area: (1) Non-impulsive stressors (sonar and other active acoustic sources), (2) impulsive stressors (explosives, pile driving and removal), and (3) vessel strikes. Non-impulsive and impulsive stressors have the potential to result in incidental takes of marine mammals by harassment, injury, or mortality. Vessel strikes have the potential to result in incidental take from direct injury and/or mortality.

Training Activities—Based on the Navy's model and post-model analysis (described in detail in Chapter 6 of their LOA application), Table 18 summarizes the Navy's take request for training activities for an annual maximum year (a notional 12-month period when all annual and non-annual events could occur) and the summation over a 5-year period (annual events occurring five times and non-annual events occurring three times). Table 19 summarizes the Navy's take request for training activities by species from the modeling estimates.

While the Navy does not anticipate any marine mammal strandings or that the mortalities predicted by the acoustic modeling would occur, the Navy requests annual authorization for take by mortality of up to seven small odontocetes (i.e., dolphins) and pinnipeds to include any combination of such species that may be present in the Study Area. While the Navy does not anticipate any beaked whale strandings or mortalities from sonar and other active sources, in order to account for unforeseen circumstances that could lead to such effects the Navy requests the annual take, by mortality, of two beaked whales as part of training activities.

Vessel strike to marine mammals is not associated with any specific training activity but rather a limited, sporadic, and accidental result of Navy vessel movement within the Study Area. In order to account for the accidental nature of vessel strikes to large whales in general, and the potential risk from any vessel movement within the Study Area, the Navy is seeking take authorization in the event a Navy vessel strike does occur while conducting training. The Navy's take authorization

request is based on the probabilities of whale strikes suggested by the data from NMFS Southwest Regional Office, NMFS Pacific Islands Regional Office, the Navy, and the calculations detailed in Chapter 6 of the Navy's LOA application. The number of Navy and commercial whale strikes for which the species has been positively identified suggests that the probability of striking a gray whale in the SOCAL Range Complex and humpback whale in the HRC is greater than striking other species. However, since species identification has not been possible in most vessel strike cases, the Navy cannot quantifiably predict what species may be taken. Therefore, the Navy seeks take authorization by vessel strike for any combined number of large whale species to include gray whale, fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, or sperm whale. The Navy requests takes of large marine mammals over the course of the 5-year regulations from training activities as discussed below:

- The take by vessel strike during training activities in any given year of no more than four large whales total of any combination of species including gray whale, fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, or sperm whale. The four takes per year requested would be no more than two of any one species of blue whale, fin whale, humpback whale, sei whale, or sperm whale in any given year.
- The take by vessel strike of no more than 12 large whales from training activities over the course of the five years of the HSTT regulations.

Over a period of 20 years from 1991 to 2010 there have been a total of 16 Navy vessel strikes in SOCAL, and five Navy vessel strikes in HRC. It should be noted that two of the five HRC Navy strikes were by <12-meter workboats vice larger Navy ships. In terms of the 16 consecutive 5-year periods in the last 20 years, no single 5-year period exceeded ten whales struck within SOCAL and HRC (periods from 2000–2004 and 2001–2005). For Navy vessel strikes in SOCAL, there were six consecutive 5-year periods with six or more whales struck (1997–2001, 1998–2002, 1999–2003, 2000–2004, 2001–2005, and 2002–2006), and no more than three whales struck in the last 5-year period from 2006–2010. No whales have been struck by Navy vessels in SOCAL since 2009. For Navy vessel strikes in the HRC for the same time period, there was one 5-year period when three whales were struck (2003–2007), seven periods when two whales were struck, five periods when one whale was struck, and three periods when no whales were struck. Within the data set analyzed for HRC through 2010, no whales have been struck by a Navy vessel since 2008. Also as discussed in Chapter 6 of the Navy's LOA application, the Poisson probability of striking as many as two large whales in the SOCAL portion of the HSTT is only 14 percent per year, and the probability of striking two large whales in the HRC portion of the HSTT is only 2 percent.

TABLE 17—SUMMARY OF ANNUAL AND 5-YEAR TAKE REQUEST FOR TRAINING ACTIVITIES

MMPA Category	Source	Training activities	
		Annual authorization sought [1]	5-Year authorization sought [2]
Mortality	Impulse	7 mortalities applicable to any small odontocete or pinniped species.	35 mortalities applicable to any small odontocete or pinniped species over five years.
	Unspecified [3]	2 mortalities to beaked whales [3]	10 mortalities to beaked whales over five years.[3]
	Vessel strike	No more than 4 large whale mortalities in any given year [4].	No more than 12 large whale mortalities over five years.[4]
Level A	Impulse and Non-Impulse.	266—Species specific data shown in Table 19.	1,314—Species specific data shown in Table 19.
Level B	Impulse and Non-Impulse.	1,691,123—Species specific data shown in Table 19.	8,398,931—Species specific data shown in Table 19.

[1] These numbers constitute the total for an annual maximum year (a notional 12-month period when all annual and non-annual events could occur) in which a RIMPAC exercise and Civilian Port Defense events would occur in Hawaii and SOCAL.

[2] These numbers constitute the summation over a 5-year period with annual events occurring five times and non-annual events occurring three times.

[3] The Navy's NAEMO model did not quantitatively predict these mortalities. Navy, however, is seeking this particular authorization given sensitivities these species may have to anthropogenic activities. Request includes 2 Ziphidae beaked whale annually to include any combination of Cuvier's beaked whale, Baird's beaked whale, Longman's beaked whale, and unspecified Mesoplodon sp. (not to exceed 10 beaked whales total over the 5-year length of requested authorization).

[4] The Navy cannot quantifiably predict that proposed takes from training will be of any particular species, and therefore seeks take authorization for any combination of large whale species (gray whale, fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, or sperm whale), but of the four takes per year no more than two of any one species of blue whale, fin whale, humpback whale, sei whale, or sperm whale is requested.

TABLE 18—SPECIES-SPECIFIC TAKE REQUEST FROM MODELING ESTIMATES OF IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TRAINING ACTIVITIES

Species	Stock	Annually [1]			Total over 5-year rule [2]		
		Level B	Level A	Mortality	Level B	Level A	Mortality
Blue whale	Eastern North Pacific	4,145	0	0	20,725	0	0
	Central North Pacific	180	0	0	834	0	0
Fin whale	California, Oregon, & Washington.	1,528	0	0	7,640	0	0
	Hawaiian	191	0	0	891	0	0
Humpback whale	California, Oregon, & Washington.	1,081	0	0	5,405	0	0
	Central North Pacific	8,192	0	0	40,960	0	0

TABLE 18—SPECIES-SPECIFIC TAKE REQUEST FROM MODELING ESTIMATES OF IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TRAINING ACTIVITIES—Continued

Species	Stock	Annually [1]			Total over 5-year rule [2]		
		Level B	Level A	Mortality	Level B	Level A	Mortality
Sei whale	Eastern North Pacific	146	0	0	730	0	0
	Hawaiian	484	0	0	2,266	0	0
Sperm whale	California, Oregon, & Washington.	1,958	0	0	9,790	0	0
	Hawaiian	1,374	0	0	6,130	0	0
Guadalupe fur seal	Mexico	2,603	0	0	13,015	0	0
Hawaiian monk seal	Hawaiian	1,292	0	0	6,334	0	0
Bryde's whale	Eastern Tropical Pacific	112	0	0	560	0	0
	Hawaiian	137	0	0	637	0	0
Gray whale	Eastern North Pacific	9,560	2	0	47,800	10	0
Minke whale	California, Oregon, & Washington.	359	0	0	1,795	0	0
	Hawaiian	447	0	0	2,235	0	0
Baird's beaked whale	California, Oregon, & Washington.	4,420	0	0	22,100	0	0
Blainville's beaked whale	Hawaiian	10,316	0	0	48,172	0	0
Bottlenose dolphin	California coastal	521	0	0	2,605	0	0
	California, Oregon & Washington offshore.	26,618	0	0	133,090	0	0
	Hawaii Stock Complex	5,163	0	0	22,895	0	0
Cuvier's beaked whale	California, Oregon, & Washington.	13,353	0	0	66,765	0	0
	Hawaiian	52,893	0	0	248,025	0	0
Dwarf sperm whale	Hawaiian	22,359	46	0	101,291	214	0
Dall's porpoise	California, Oregon, & Washington.	36,891	47	0	184,455	235	0
False killer whale	Hawaii Insular	49	0	0	220	0	0
	Hawaii Pelagic	480	0	0	2,116	0	0
	Northwest Hawaiian Islands	177	0	0	776	0	0
Fraser's dolphin	Hawaiian	2,009	0	0	8,809	0	0
Killer whale	Eastern North Pacific offshore/transient.	321	0	0	1,605	0	0
	Hawaiian	182	0	0	822	0	0
Kogia spp	California	12,943	33	0	64,715	165	0
Long-beaked common dolphin	California	73,113	2	0	365,565	10	0
Longman's beaked whale	Hawaiian	3,666	0	0	17,296	0	0
Melon-headed whale	Hawaiian	1,511	0	0	6,733	0	0
Mesoplodon beaked whales [3]	California, Oregon, & Washington.	1,994	0	0	9,970	0	0
Northern right whale dolphin	California, Oregon, & Washington.	51,596	1	0	257,980	5	0
Pacific white-sided dolphin	California, Oregon, & Washington.	38,467	1	0	192,335	5	0
Pantropical spotted dolphin	Hawaiian	10,887	0	0	48,429	0	0
Pygmy killer whale	Hawaiian	571	0	0	2,603	0	0
Pygmy sperm whale	Hawaiian	229	0	0	1,093	0	0
Risso's dolphin	California, Oregon, & Washington.	86,564	1	0	432,820	5	0
	Hawaiian	1,085	0	0	4,887	0	0
Rough-toothed dolphin	Hawaiian	5,131	0	0	22,765	0	0
Short-beaked common dolphin	California, Oregon, & Washington.	999,282	70	*3	4,996,410	350	*15
Short-finned pilot whale	California, Oregon, & Washington.	308	0	0	1,540	0	0
	Hawaiian	9,150	0	0	40,760	0	0
Spinner dolphin	Hawaii Stock Complex	2,576	0	0	11,060	0	0
Striped dolphin	California, Oregon, & Washington.	3,545	0	0	17,725	0	0
	Hawaiian	3,498	0	0	15,422	0	0
California sea lion	U.S. Stock	126,961	25	*4	634,805	125	*20
Northern fur seal	San Miguel Island	20,083	5	0	100,415	25	0
Harbor seal	California	5,906	11	0	29,530	55	0
Northern elephant seal	California Breeding	22,516	22	0	112,580	110	0

[1] These numbers constitute the total for an annual maximum year (a notional 12-month period when all annual and non-annual events could occur) in which a RIMPAC exercise and Civilian Port Defense events would occur in Hawaii and SOCAL.

[2] These numbers constitute the summation over a 5-year period with annual events occurring five times and non-annual events occurring three times.

[3] Mesoplodon spp. in SOCAL for the undifferentiated occurrence of five Mesoplodon species (M. carlhubbsi, M. ginkgodens, M. perrini, M. peruvianus, M. stejnegeri but does not include Blainville's beaked whale listed separately above.

* These mortalities are considered in Table 18 as an unspecified ''any small odontocete and pinniped species.''

Testing Activities—Table 19 summarizes the Navy's take request for testing activities and Table 20 specifies the Navy's take request for testing activities by species from the modeling estimates.

While the Navy does not anticipate any mortalities predicted for testing activities by the acoustic modeling would occur, the Navy requests annual authorization for take by mortality of up to 19 small odontocetes (i.e., dolphins) and pinnipeds to include any combination of such species with potential presence in the Study Area as part of testing activities using impulsive sources.

The Navy does not anticipate vessel strikes of marine mammals would occur during testing activities in the Study Area in any given year. Most testing conducted in the Study Area that involves surface ships is conducted on Navy ships. Therefore, the vessel strike take request for training activities covers those activities. For the smaller number of testing activities not conducted in conjunction with fleet training, the Navy requests a smaller number of takes resulting incidental to vessel strike. However, in order to account for the accidental nature of vessel strikes to large whales in general, and potential risk from any vessel movement within the Study Area, the Navy is seeking take authorization in the event a Navy vessel strike does occur while conducting testing during the five year period of NMFS' final authorization as follows:

- The take by vessel strike during testing activities in any given year of no more than two large whales total of any combination of species including gray whale, fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, or sperm whale. The two takes per year requested would be no more than one of any species of blue whale, fin whale, humpback whale, sei whale, or sperm whale in any given year.
- The take by vessel strike of no more than three large whales from testing activities over the course of the 5-year regulations.

TABLE 19—SUMMARY OF ANNUAL AND 5-YEAR TAKE REQUEST FOR TESTING ACTIVITIES

MMPA Category	Source	Testing activities	
		Annual authorization sought	5-Year authorization sought
Mortality	Impulse	19 mortalities applicable to any small odontocete or pinniped species.	95 mortalities applicable to any small odontocete or pinniped species over five years.
	Vessel strike	No more than 2 large whale mortalities in any given year.[1]	No more than 3 large whale mortalities over five years.[1]
Level A	Impulse and Non-Impulse.	145—Species specific data shown in Table 21.	725—Species specific data shown in Table 21.
Level B	Impulse and Non-Impulse.	238,880—Species specific data shown in Table 21.	1,194,400—Species specific data shown in Table 21.

[1] Navy cannot quantifiably predict that the proposed takes from testing (a total of two in a given year or over the course of 5-years) will be of any particular species, and therefore seeks take authorization for any combination of large whale species (gray whale, fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, or sperm whale), but of the two takes in any given year, no more than one of each species of blue whale, fin whale, humpback whale, sei whale, or sperm whale is requested.

TABLE 20—SPECIES-SPECIFIC TAKE REQUESTS FROM MODELING ESTIMATES OF IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TESTING ACTIVITIES

Species	Stock	Annually			Total over 5-year rule		
		Level B	Level A	Mortality	Level B	Level A	Mortality
Blue whale	Eastern North Pacific	413	0	0	2,065	0	0
	Central North Pacific	15	0	0	75	0	0
Fin whale	California, Oregon, & Washington.	202	0	0	1,010	0	0
	Hawaiian	23	0	0	115	0	0
Humpback whale	California, Oregon, & Washington.	101	0	0	505	0	0
	Central North Pacific	820	0	0	4,100	0	0
Sei whale	Eastern North Pacific	21	0	0	105	0	0
	Hawaiian	30	0	0	150	0	0
Sperm whale	California, Oregon, & Washington.	146	0	0	730	0	0
	Hawaiian	117	0	0	585	0	0
Guadalupe fur seal	Mexico	269	0	0	1,345	0	0
Hawaiian monk seal	Hawaiian	358	0	0	1,790	0	0
Bryde's whale	Eastern Tropical Pacific	5	0	0	25	0	0
	Hawaiian	13	0	0	65	0	0
Gray whale	Eastern North Pacific	2,570	1	0	12,850	5	0
Minke whale	California, Oregon, & Washington.	49	0	0	245	0	0
	Hawaiian	30	0	0	150	0	0
Baird's beaked whale	California, Oregon, & Washington.	1,045	0	0	5,225	0	0
Blainville's beaked whale	Hawaiian	960	0	0	4,800	0	0

TABLE 20—SPECIES-SPECIFIC TAKE REQUESTS FROM MODELING ESTIMATES OF IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TESTING ACTIVITIES—Continued

Species	Stock	Annually			Total over 5-year rule		
		Level B	Level A	Mortality	Level B	Level A	Mortality
Bottlenose dolphin	California coastal	769	0	0	3,845	0	0
	California, Oregon & Washington offshore.	2,407	0	0	12,035	0	0
	Hawaii Stock Complex	337	0	0	1,685	0	0
Cuvier's beaked whale	California, Oregon, & Washington.	2,319	0	0	11,595	0	0
	Hawaiian	4,549	0	0	22,745	0	0
Dwarf sperm whale	Hawaiian	2,376	28	0	11,880	140	0
Dall's porpoise	California, Oregon, & Washington.	5,215	32	0	26,075	160	0
False killer whale	Hawaii Insular	4	0	0	20	0	0
	Hawaii Pelagic	37	0	0	185	0	0
False killer whale	Northwest Hawaiian Islands	14	0	0	70	0	0
Fraser's dolphin	Hawaiian	45	0	0	225	0	0
Killer whale	Eastern North Pacific offshore/transient.	53	0	0	265	0	0
	Hawaiian	14	0	0	70	0	0
Kogia spp.	California	1,232	6	0	6,160	30	0
Long-beaked common dolphin	California	47,851	2	0	239,255	10	0
Longman's beaked whale	Hawaiian	436	0	0	2,180	0	0
Melon-headed whale	Hawaiian	124	0	0	620	0	0
Mesoplodon beaked whales [1]	California, Oregon, & Washington.	345	0	0	1,725	0	0
Northern right whale dolphin	California, Oregon, & Washington.	5,729	1	0	28,645	5	0
Pacific white-sided dolphin	California, Oregon, & Washington.	4,924	1	0	24,620	5	0
Pantropical spotted dolphin	Hawaiian	685	2	0	3,425	10	0
Pygmy killer whale	Hawaiian	61	0	0	305	0	0
Pygmy sperm whale	Hawaiian	117	1	0	585	5	0
Risso's dolphin	California, Oregon, & Washington.	8,739	1	0	43,695	5	0
	Hawaiian	113	0	0	565	0	0
Rough-toothed dolphin	Hawaiian	410	0	0	2,050	0	0
Short-beaked common dolphin	California, Oregon, & Washington.	122,748	40	*13	613,740	200	*65
Short-finned pilot whale	California, Oregon, & Washington.	79	0	0	395	0	0
	Hawaiian	797	0	0	3,985	0	0
Spinner dolphin	Hawaii Stock Complex	167	1	0	835	5	0
Striped dolphin	California, Oregon, & Washington.	998	0	0	4,990	0	0
	Hawaiian	269	1	0	1,345	5	0
California sea lion	U.S. Stock	13,038	17	*6	65,190	85	*30
Northern fur seal	San Miguel Island	1,088	3	0	5,440	15	0
Harbor seal	California	892	3	0	4,460	15	0
Northern elephant seal	California Breeding	2,712	5	0	13,560	25	0

[1] Mesoplodon spp. in SOCAL for the undifferentiated occurrence of five Mesoplodon species (M. carlhubbsi, M. ginkgodens, M. perrini, M. peruvianus, M. stejnegeri) but does not include Blainville's beaked whale listed separately above.

* These mortalities are considered in Table 20 as an unspecified ''any small odontocete and pinniped species.''

Marine Mammal Habitat

The Navy's proposed training and testing activities could potentially affect marine mammal habitat through the introduction of sound into the water column, impacts to the prey species of marine mammals, bottom disturbance, or changes in water quality. Each of these components was considered in the HSTT DEIS/OEIS and was determined by the Navy to have no effect on marine mammal habitat. Based on the information below and the supporting information included in the HSTT DEIS/OEIS, NMFS has preliminarily determined that the proposed training and testing activities would not have adverse or long-term impacts on marine mammal habitat.

Important Marine Mammal Habitat

The only ESA-listed marine mammal with designated critical habitat within the HSTT Study Area is the Hawaiian monk seal. Critical habitat was first established for the Hawaiian monk seal in 1986 to include all beach areas, sand spits and islets, lagoon waters, inner reef waters, and ocean waters to a depth of 18.3 m around specified northwestern Hawaiian Islands. These areas were expanded in 1988 and in 2011, NMFS proposed that six new extensive areas in the main Hawaiian Islands be added. However, specific areas were excluded from critical habitat designation because it was determined that the national security benefits of exclusion outweighed the benefits of inclusion, and that their exclusion would not result in extinction of the species. The excluded areas include: Kingfisher

Underwater Training area in marine areas off the northeast coast of Niihau; Pacific Missile Range Facility Main Base at Barking Sands, Kauai; Pacific Missile Range Facility Offshore Areas in marine areas off the western coast of Kauai; the Naval Defensive Sea Area and Puuloa Underwater Training Range in marine areas outside Pearl Harbor, Oahu; and the Shallow Water Minefield Sonar Training Range off the western coast of Kahoolawe in the Maui Nui area.

The nearshore areas in and around the Hawaiian Humpback Whale National Marine Sanctuary contain very important breeding and calving habitat for the humpback whale; however, effects in this area have been analyzed previously in this document in the context of the whales themselves. There are no known specific breeding areas within the SOCAL Range Complex with the exception of pinnipeds. Much is unknown about the specifics of dolphin mating, but it is presumed that these species mate throughout their habitat and possibly throughout the year. Even less is known about the mating habits of beaked whales. Most of the offshore area within the SOCAL Range Complex could potentially be utilized for active sonar activities or underwater detonations. The Navy assumes that active sonar activities could take place within potential mating areas of these toothed whale species within SOCAL, although current state of knowledge is very limited and there may be seasonal components to distribution that could account for breeding activities outside of the SOCAL Range Complex. Baleen whales and sperm whales breed in deep tropical and subtropical waters south and west of the SOCAL Range Complex.

Expected Effects on Habitat

Unless the sound source or explosive detonation is stationary and/or continuous over a long duration in one area, the effects of the introduction of sound into the environment are generally considered to have a less severe impact on marine mammal habitat than the physical alteration of the habitat. Activities involving sound or energy from sonar and other active acoustic sources would not occur on shore in designated Hawaiian monk seal critical habitat where haul out and resting behavior occurs and would have no effect on critical habitat at sea. Acoustic exposures are not expected to result in long-term physical alteration of the water column or bottom topography, as the occurrences are of limited duration and are intermittent in time. Surface vessels associated with the activities are present in limited duration and are intermittent as they are continuously and relatively rapidly moving through any given area. Most of the high-explosive military expended materials would detonate at or near the water surface. Only bottom-laid explosives are likely to affect bottom substrate; habitat used for underwater detonations and seafloor device placement would primarily be soft-bottom sediment. Once on the seafloor, military expended material would likely be colonized by benthic organisms because the materials would serve as anchor points in the shifting bottom substrates, similar to a reef. The surface area of bottom substrate affected would make up a very small percentage of the total training area available in the HSTT Study Area.

Effects on Marine Mammal Prey

Invertebrates—Marine invertebrate distribution in the HSTT Study Area is influenced by habitat, ocean currents, and water quality factors such as temperature, salinity, and nutrient content (Levinton 2009). The distribution of invertebrates is also influenced by their distance from the equator (latitude); in general, the number of marine invertebrate species increases toward the equator (Macpherson 2002). The higher number of species (diversity) and abundance of marine invertebrates in coastal habitats, compared with the open ocean, is a result of more nutrient availability from terrestrial environments and the variety of habitats and substrates found in coastal waters (Levinton 2009).

Marine invertebrates in the Hawaii Range Complex (HRC) portion of the HSTT Study Area inhabit coastal waters and seafloor habitats, including rocky intertidal zones, coral reefs, deep-water slopes, canyons, and seamounts. Corals are the primary living structural components of Hawaii's subtidal zone, with an average of about 20.3 percent coral coverage in the main Hawaiian Islands (Friedlander *et al.* 2005). Approximately 250 species of corals are found within the main Hawaiian Islands, but the area is dominated by six species (Maragos *et al.,* 2004; Friedlander *et al.,* 2005). The Northwestern Hawaiian Islands have at least 57 species of stony coral (Maragos *et al.* 2004). The coral reefs of the Northwestern Hawaiian Islands support diverse communities of bottom-dwelling invertebrates. Over 800 non-coral invertebrate species have been identified from the Northwestern Hawaiian Islands. Mollusks, echinoderms, and crustaceans dominate, representing 80 percent of the invertebrate species (Friedlander *et al.* 2005).

Marine invertebrates in the Southern California portion of the HSTT Study Area inhabit coastal waters and benthic habitats, including salt marshes, kelp forests, soft sediments, canyons, and the continental shelf. The diverse range of species include oysters, crabs, worms, ghost shrimp, California horn snails (Cerithidea californica), sponges, sea fans, isopods, and stony corals (Proctor *et al.,* 1980; Dugan *et al.,* 2000; Chess and Hobson, 1997). The Channel Islands, off the coast of Southern California, are situated in a transitional location between cold and warm water, making them host to over 5,000 invertebrate species (Tissot *et al.,* 2006). Soft-bottom communities of California estuaries, such as San Diego Bay, are home to mostly crustaceans, marine worms, and mollusks (Navy and San Diego Unified Port District, 2000).

Very little is known about sound detection and use of sound by aquatic invertebrates (Budelmann 2010; Montgomery *et al.,* 2006; Popper *et al.,* 2001). Organisms may detect sound by sensing either the particle motion or pressure component of sound, or both. Aquatic invertebrates probably do not detect pressure since many are generally the same density as water and few, if any, have air cavities that would function like the fish swim bladder in responding to pressure (Budelmann 2010; Popper *et al.,* 2001). Many marine invertebrates, however, have ciliated ''hair'' cells that may be sensitive to water movements, such as those caused by currents or water particle motion very close to a sound source (Budelmann 2010; Mackie and Singla 2003). These cilia may allow invertebrates to sense nearby prey or predators or help with local navigation. Marine invertebrates may produce and use sound in territorial behavior, to deter predators, to find a mate, and to pursue courtship (Popper *et al.,* 2001).

Both behavioral and auditory brainstem response studies suggest that crustaceans may sense sounds up to three kilohertz (kHz), but best sensitivity is likely below 200 Hz (Lovell *et al.,* 2005; Lovell *et al.* 2006; Goodall *et al.* 1990). Most cephalopods (e.g., octopus and squid) likely sense low-frequency sound below 1,000 Hz, with best sensitivities at lower frequencies (Budelmann 2010; Mooney *et al.,* 2010; Packard *et al.,* 1990). A few cephalopods may sense higher frequencies up to 1,500 Hz (Hu *et al.,* 2009). Squid did not respond to toothed whale ultrasonic echolocation clicks at sound pressure levels ranging from 199 to 226 dB re 1 μPa peak-to-peak, likely because these clicks were outside of squid hearing range (Wilson *et al.,*

2007). However, squid exhibited alarm responses when exposed to broadband sound from an approaching seismic airgun with received levels exceeding 145 to 150 dB re 1 µPa root mean square (McCauley *et al.,* 2000b).

Little information is available on the potential impacts on marine invertebrates of exposure to sonar, explosions, and other sound-producing activities. It is expected that most marine invertebrates would not sense mid- or high-frequency sounds, distant sounds, or aircraft noise transmitted through the air-water interface. Most marine invertebrates would not be close enough to intense sound sources, such as some sonars, to potentially experience impacts to sensory structures. Any marine invertebrate capable of sensing sound may alter its behavior if exposed to non-impulsive sound, although it is unknown if responses to non-impulsive sounds occur. Continuous noise, such as from vessels, may contribute to masking of relevant environmental sounds, such as reef noise. Because the distance over which most marine invertebrates are expected to detect any sounds is limited and vessels would be in transit, any sound exposures with the potential to cause masking or behavioral responses would be brief and long-term impacts are not expected. Although non-impulsive underwater sounds produced during training and testing activities may briefly impact individuals, intermittent exposures to non-impulsive sounds are not expected to impact survival, growth, recruitment, or reproduction of widespread marine invertebrate populations.

Most detonations would occur greater than 3 nm from shore. As water depth increases away from shore, benthic invertebrates would be less likely to be impacted by detonations at or near the surface. In addition, detonations near the surface would release a portion of their explosive energy into the air, reducing the explosive impacts in the water. Some marine invertebrates may be sensitive to the low-frequency component of impulsive sound, and they may exhibit startle reactions or temporary changes in swim speed in response to an impulsive exposure. Because exposures are brief, limited in number, and spread over a large area, no long-term impacts due to startle reactions or short-term behavioral changes are expected. Although individual marine invertebrates may be injured or killed during an explosion or pile driving, no long-term impacts on the survival, growth, recruitment, or reproduction of marine invertebrate populations are expected.

Fish—Fish are not distributed uniformly throughout the HSTT Study Area, but are closely associated with a variety of habitats. Some species range across thousands of square miles while others have small home ranges and restricted distributions (Helfman *et al.,* 2009).

Currently 566 species of reef and shore fishes are known to occur around the Insular Pacific-Hawaiian Large Marine Ecosystem within the HSTT Study Area. The high number of species that are found only in Hawaii can be explained by its geographical and hydrographical isolation (Randall 1998). Migratory open ocean fishes, such as the larger tunas, the billfishes, and some sharks, are able to move across the great distance that separates the Hawaiian Islands from other islands or continents in the Pacific. Coral reef fish communities in the Hawaiian Islands (excluding Nihoa) show a consistent pattern of species throughout the year. Exceptions include the seasonal distributions of migratory, open ocean species. Several reef fish species also show seasonal fluctuations which are usually related to movements of juveniles into new areas or spawning activity (U. S. Navy Office of Naval Research, 2001).

The Southern California portion of the HSTT Study Area is in a region of highly productive fisheries (Leet *et al.,* 2001) within the California Current Large Marine Ecosystem. The portion of the California Bight in the HSTT Study Area is a transitional zone between cold and warm water masses, geographically separated by Point Conception. The cold-water California Current Large Marine Ecosystem is rich in microscopic plankton (diatoms, krill, and other organisms), which form the base of the food chain in the Southern California portion of the HSTT Study Area. Small coastal pelagic fishes depend on this plankton and in turn are fed on by larger species (such as highly migratory species). The high fish diversity found in the HSTT Study Area occurs for several reasons: (1) The ranges of many temperate and tropical species extend into Southern California; (2) the area has complex bottom features and physical oceanographic features that include several water masses and a changeable marine climate (Allen *et al.* 2006; Horn and Allen 1978); and (3) the islands and coastal areas provide a diversity of habitats that include soft bottom, rocky reefs, kelp beds, and estuaries, bays, and lagoons.

All fish have two sensory systems to detect sound in the water: the inner ear, which functions very much like the inner ear in other vertebrates, and the lateral line, which consists of a series of receptors along the fish's body (Popper 2008). The inner ear generally detects relatively higher-frequency sounds, while the lateral line detects water motion at low frequencies (below a few hundred Hz) (Hastings and Popper 2005a). Although hearing capability data only exist for fewer than 100 of the 32,000 fish species, current data suggest that most species of fish detect sounds from 50 to 1,000 Hz, with few fish hearing sounds above 4 kHz (Popper 2008). It is believed that most fish have their best hearing sensitivity from 100 to 400 Hz (Popper 2003b). Additionally, some clupeids (shad in the subfamily Alosinae) possess ultrasonic hearing (i.e., able to detect sounds above 100,000 Hz) (Astrup 1999). Permanent hearing loss, or permanent threshold shift has not been documented in fish. The sensory hair cells of the inner ear in fish can regenerate after they are damaged, unlike in mammals where sensory hair cells loss is permanent (Lombarte *et al.* 1993; Smith *et al.* 2006). As a consequence, any hearing loss in fish may be as temporary as the timeframe required to repair or replace the sensory cells that were damaged or destroyed (e.g., Smith *et al.* 2006).

Potential direct injuries from non-impulsive sound sources, such as sonar, are unlikely because of the relatively lower peak pressures and slower rise times than potentially injurious sources such as explosives. Non-impulsive sources also lack the strong shock waves associated with an explosion. Therefore, direct injury is not likely to occur from exposure to non-impulsive sources such as sonar, vessel noise, or subsonic aircraft noise. Only a few fish species are able to detect high-frequency sonar and could have behavioral reactions or experience auditory masking during these activities. These effects are expected to be transient and long-term consequences for the population are not expected. MFAS is unlikely to impact fish species because most species are unable to detect sounds in this frequency range and vessels operating MFAS would be transiting an area (not stationary). While a large number of fish species may be able to detect low-frequency sonar and other active acoustic sources, low-frequency active usage is rare and mostly conducted in deeper waters. Overall effects to fish from would be localized and infrequent.

Physical effects from pressure waves generated by underwater sounds (e.g. underwater explosions) could potentially affect fish within proximity of training or testing activities. In particular, the rapid oscillation between high- and low-pressure peaks has the

potential to burst the swim bladders and other gas-containing organs of fish (Keevin and Hemen 1997). Sublethal effects, such as changes in behavior of fish, have been observed in several occasions as a result of noise produced by explosives (National Research Council of the National Academies 2003; Wright 1982). If an individual fish were repeatedly exposed to sounds from underwater explosions that caused alterations in natural behavioral patterns or physiological stress, these impacts could lead to long-term consequences for the individual such as reduced survival, growth, or reproductive capacity. However, the time scale of individual explosions is very limited, and training exercises involving explosions are dispersed in space and time. Consequently, repeated exposure of individual fish to sounds from underwater explosions is not likely and most acoustic effects are expected to be short-term and localized. Long-term consequences for populations would not be expected. A limited number of fish may be killed in the immediate proximity of pile driving locations and additional fish may be injured. Short-term effects such as masking, stress, behavioral change, and hearing threshold shifts are also expected during pile driving operations. However, given the relatively small area that would be affected, and the abundance and distribution of the species concerned, no population-level effects are expected. The abundances of various fish and invertebrates near the detonation point of an explosion or around a pile driving location could be altered for a few hours before animals from surrounding areas repopulate the area; however these populations would be replenished as waters near the sound source are mixed with adjacent waters.

Marine Mammal Avoidance

Marine mammals may be temporarily displaced from areas where Navy training and testing is occurring, but the area should be utilized again after the activities have ceased. Avoidance of an area can help the animal avoid further acoustic effects by avoiding or reducing further exposure. The intermittent or short duration of many activities should prevent animals from being exposed to stressors on a continuous basis. In areas of repeated and frequent acoustic disturbance, some animals may habituate or learn to tolerate the new baseline or fluctuations in noise level. While some animals may not return to an area, or may begin using an area differently due to training and testing activities, most animals are expected to return to their usual locations and behavior.

Other Expected Effects

Other sources that may affect marine mammal habitat were considered in the HSTT DEIS/OEIS and potentially include the introduction of fuel, debris, ordnance, and chemical residues into the water column. The majority of high-order explosions would occur at or above the surface of the ocean, and would have no impacts on sediments and minimal impacts on water quality. While disturbance or strike from an item falling through the water column is possible, it is unlikely because (1) Objects sink slowly, (2) most projectiles are fired at targets (and hit those targets), and (3) animals are generally widely dispersed throughout the water column and over the HSTT Study Area. Chemical, physical, or biological changes in sediment or water quality would not be detectable. In the event of an ordnance failure, the energetic materials it contained would remain mostly intact. The explosive materials in failed ordnance items and metal components from training and testing would leach slowly and would quickly disperse in the water column. Chemicals from other explosives would not be introduced into the water column in large amounts and all torpedoes would be recovered following training and testing activities, reducing the potential for chemical concentrations to reach levels that can affect sediment quality, water quality, or benthic habitats.

Analysis and Negligible Impact Determination

Pursuant to NMFS' regulations implementing the MMPA, an applicant is required to estimate the number of animals that will be ''taken'' by the specified activities (i.e., takes by harassment only, or takes by harassment, injury, and/or death). This estimate informs the analysis that NMFS must perform to determine whether the activity will have a ''negligible impact'' on the affected species or stock. Level B (behavioral) harassment occurs at the level of the individual(s) and does not assume any resulting population-level consequences, though there are known avenues through which behavioral disturbance of individuals can result in population-level effects (e.g., pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-percent reproductive success compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and had a 17-percent reproductive success). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (i.e., population-level effects). An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, and effects on habitat. Generally speaking, and especially with other factors being equal, the Navy and NMFS anticipate more severe effects from takes resulting from exposure to higher received levels (though this is in no way a strictly linear relationship throughout species, individuals, or circumstances) and less severe effects from takes resulting from exposure to lower received levels.

The Navy's specified activities have been described based on best estimates of the maximum number of activity hours or detonations that the Navy would conduct. There may be some flexibility in the exact number of hours, items, or detonations may vary from year to year, but totals would not exceed the 5-year totals indicated in Tables 19 and 21. Furthermore the Navy's take request is based on their model and post-model analysis. The requested number of Level B takes does not equate to the number of individual animals the Navy expects to harass (which is lower), but rather to the instances of take (i.e., exposures) that will occur. Depending on the location, duration, and frequency of activities, along with the distribution and movement of marine mammals, individual animals may be exposed multiple times to impulse or non-impulse sounds at or above the Level B harassment threshold. However, the Navy is currently unable to estimate the number of individuals that may be taken during training and testing activities. The model results over estimate the overall number of takes that may occur to a smaller number of individuals. While the model shows that an increased number of exposures may take place (compared to the 2009 rulemakings for HRC and the SOCAL Range Complex), the types and severity of individual responses to training and testing activities are not expected to change.

Taking the above into account, considering the sections discussed below, and dependent upon the implementation of the proposed mitigation measures, NMFS has preliminarily determined that Navy's proposed training and testing exercises would have a negligible impact on the marine mammal species and stocks present in the Study Area.

Behavioral Harassment

As discussed previously in this document, marine mammals can respond to MFAS/HFAS in many different ways, a subset of which qualifies as harassment (see Behavioral Harassment Section). One thing that the take estimates do not take into account is the fact that most marine mammals will likely avoid strong sound sources to one extent or another. Although an animal that avoids the sound source will likely still be taken in some instances (such as if the avoidance results in a missed opportunity to feed, interruption of reproductive behaviors, etc.) in other cases avoidance may result in fewer instances of take than were estimated or in the takes resulting from exposure to a lower received level than was estimated, which could result in a less severe response. For MFAS/HFAS, the Navy provided information (Table 21) estimating the percentage of behavioral harassment that would occur within the 6-dB bins (without considering mitigation or avoidance). As mentioned above, an animal's exposure to a higher received level is more likely to result in a behavioral response that is more likely to adversely affect the health of the animal. As the table illustrates, the vast majority (about 83 percent, at least for hull-mounted sonar, which is responsible for most of the sonar takes) of calculated takes for MFAS result from exposures between 156 dB and 162 dB. Less than 0.5 percent of the takes are expected to result from exposures above 174 dB.

TABLE 21—NON-IMPULSIVE RANGES IN 6–DB BINS AND PPERCENTAGE OF BEHAVIORAL HARASSMENTS

Received level	Sonar bin MF1 (e.g., SQS–53; ASW hull mounted sonar)		Sonar bin MF4 (e.g., AQS–22; ASW dipping sonar)		Sonar Bin MF5 (e.g., SSQ–62; ASW sonobuoy)		Sonar Bin HF4 (e.g., SQQ–32; MIW sonar)	
	Distance at which levels occur within radius of source (m)	Percentage of behavioral harassments occurring at given levels	Distance at which levels occur within radius of source (m)	Percentage of behavioral harassments occurring at given levels	Distance at which levels occur within radius of source (m)	Percentage of behavioral harassments occurring at given levels	Distance at which levels occur within radius of source (m)	Percentage of behavioral harassments occurring at given levels
Low Frequency Cetaceans								
120 ≤SPL <126	172,558–162,925	0.00	40,000–40,000	0.00	23,880–17,330	0.00	3,100–2,683	0.00
126 ≤SPL <132	162,925–117,783	0.00	40,000–40,000	0.00	17,330–12,255	0.10	2,683–2,150	0.01
132 ≤SPL <138	117,783–108,733	0.04	40,000–12,975	3.03	12,255–7,072	4.12	2,150–1,600	0.48
138 ≤SPL <144	108,733–77,850	1.57	12,975–12,800	0.14	7,072–3,297	23.69	1,600–1,150	4.20
144 ≤SPL <150	77,850–58,400	5.32	12,800–6,525	27.86	3,297–1,113	42.90	1,150–575	24.79
150 ≤SPL <156	58,400–53,942	4.70	6,525–2,875	36.83	1,113–255	24.45	575–300	28.10
156 ≤SPL <162	53,942–8,733	83.14	2,875–1,088	23.78	255–105	3.52	300–150	24.66
162 ≤SPL <168	8,733–4,308	3.51	1,088–205	7.94	105–55	1.08	150–100	9.46
168 ≤SPL <174	4,308–1,950	1.31	205–105	0.32	55–55	0.00	100–<50	8.30
174 ≤SPL <180	1,950–850	0.33	105–55	0.10	55–55	0.00	<50	0.00
180 ≤SPL <186	850–400	0.06	55–<50	0.01	55–<50	0.13	<50	0.00
186 ≤SPL <192	400–200	0.01	<50	0.00	<50	0.00	<50	0.00
192 ≤ SPL <198	200–100	0.00	<50	0.00	<50	0.00	<50	0.00
Mid-Frequency Cetaceans								
120 ≤ SPL <126	172,592–162,933	0.00	40,000–40,000	0.00	24,205–18,872	0.00	4,133–3,600	0.00
126 ≤ SPL <132	162,933–124,867	0.00	40,000–40,000	0.00	18,872–12,697	0.10	3,600–3,075	0.00
132 ≤ SPL <138	124,867–108,742	0.07	40,000–12,975	2.88	12,697–7,605	3.03	3,075–2,525	0.01
138 ≤ SPL <144	108,742–78,433	1.54	12,975–12,800	0.02	7,605–4,080	17.79	2,525–1,988	0.33
144 ≤ SPL <150	78,433–58,650	5.41	12,800–6,525	26.73	4,080–1,383	46.83	1,988–1,500	2.83
150 ≤ SPL <156	58,650–53,950	4.94	6,525–2,875	36.71	1,383–300	27.08	1,500–1,000	14.92
156 ≤ SPL <162	53,950–8,925	82.62	2,875–1,088	25.65	300–155	3.06	1,000–500	40.11
162 ≤ SPL <168	8,925–4,375	3.66	1,088–205	7.39	155–55	2.02	500–300	22.18
168 ≤ SPL <174	4,375–1,992	1.34	205–105	0.52	55–55	0.00	300–150	14.55
174 ≤ SPL <180	1,992–858	0.34	105–55	0.09	55–55	0.00	150–<50	5.07
180 ≤ SPL <186	858–408	0.06	55–<50	0.01	55–<50	0.09	<50	0.00
186 ≤ SPL <192	408–200	0.01	<50	0.00	<50	0.00	<50	0.00
192 ≤ SPL <198	200–100	0.00	<50	0.00	<50	0.00	<50	0.00

ASW: anti-submarine warfare; MIW: mine warfare; m: meter; SPL: sound pressure level

Although the Navy has been monitoring to discern the effects of MFAS/HFAS on marine mammals since 2006, and research on the effects of MFAS is advancing, our understanding of exactly how marine mammals in the Study Area will respond to MFAS/HFAS is still limited. The Navy has submitted reports from more than 60 major exercises conducted in the HRC and SOCAL, and off the Atlantic Coast, that indicate no behavioral disturbance was observed. One cannot conclude from these results that marine mammals were not harassed from MFAS/HFAS, as a portion of animals within the area of concern were not seen (especially those more cryptic, deep-diving species, such as beaked whales or *Kogia* spp.), the full series of behaviors that would more accurately show an important change is not typically seen (i.e., only the surface behaviors are observed), and some of the non-biologist watchstanders might not be well-qualified to characterize behaviors. However, one can say that the animals that were observed did not respond in any of the obviously more severe ways, such as panic, aggression, or anti-predator response.

Diel Cycle

As noted previously, many animals perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hour cycle). Behavioral reactions to noise exposure (when taking place in a biologically important context, such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last

more than one diel cycle or recur on subsequent days (Southall *et al.,* 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007).

In the previous section, we discussed that potential behavioral responses to MFAS/HFAS that fall into the category of harassment could range in severity. By definition, for military readiness activities, takes by behavioral harassment involve the disturbance or likely disturbance of a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns (such as migration, surfacing, nursing, breeding, feeding, or sheltering) to a point where such behavioral patterns are abandoned or significantly altered. These reactions would, however, be more of a concern if they were expected to last over 24 hrs or be repeated in subsequent days. However, vessels with hull-mounted active sonar are typically moving at speeds of 10–15 knots, which would make it unlikely that the same animal could remain in the immediate vicinity of the ship for the entire duration of the exercise. Animals may be exposed to MFAS/HFAS for more than one day or on successive days. However, because neither the vessels nor the animals are stationary, significant long-term effects are not expected.

Most planned explosive exercises are of a short duration (1–6 hours). Although explosive exercises may sometimes be conducted in the same general areas repeatedly, because of their short duration and the fact that they are in the open ocean and animals can easily move away, it is similarly unlikely that animals would be exposed for long, continuous amounts of time. TTS

As mentioned previously, TTS can last from a few minutes to days, be of varying degree, and occur across various frequency bandwidths, all of which determine the severity of the impacts on the affected individual, which can range from minor to more severe. The TTS sustained by an animal is primarily classified by three characteristics:

1. Frequency—Available data (of mid-frequency hearing specialists exposed to mid- or high-frequency sounds; Southall *et al.,* 2007) suggest that most TTS occurs in the frequency range of the source up to one octave higher than the source (with the maximum TTS at ½ octave above). The more powerful MF sources used have center frequencies between 3.5 and 8 kHz and the other unidentified MF sources are, by definition, less than 10 kHz, which suggests that TTS induced by any of these MF sources would be in a frequency band somewhere between approximately 2 and 20 kHz. There are fewer hours of HF source use and the sounds would attenuate more quickly, plus they have lower source levels, but if an animal were to incur TTS from these sources, it would cover a higher frequency range (sources are between 20 and 100 kHz, which means that TTS could range up to 200 kHz; however, HF systems are typically used less frequently and for shorter time periods than surface ship and aircraft MF systems, so TTS from these sources is even less likely). TTS from explosives would be broadband. Vocalization data for each species was provided in the Navy's LOA application.

2. Degree of the shift (i.e., how many dB is the sensitivity of the hearing reduced by)—Generally, both the degree of TTS and the duration of TTS will be greater if the marine mammal is exposed to a higher level of energy (which would occur when the peak dB level is higher or the duration is longer). The threshold for the onset of TTS was discussed previously in this document. An animal would have to approach closer to the source or remain in the vicinity of the sound source appreciably longer to increase the received SEL, which would be difficult considering the lookouts and the nominal speed of an active sonar vessel (10–15 knots). In the TTS studies, some using exposures of almost an hour in duration or up to 217 SEL, most of the TTS induced was 15 dB or less, though Finneran *et al.* (2007) induced 43 dB of TTS with a 64-second exposure to a 20 kHz source. However, MFAS emits a nominal ping every 50 seconds, and incurring those levels of TTS is highly unlikely.

3. Duration of TTS (recovery time)—In the TTS laboratory studies, some using exposures of almost an hour in duration or up to 217 SEL, almost all individuals recovered within 1 day (or less, often in minutes), though in one study (Finneran *et al.,* 2007), recovery took 4 days.

Based on the range of degree and duration of TTS reportedly induced by exposures to non-pulse sounds of energy higher than that to which free-swimming marine mammals in the field are likely to be exposed during MFAS/HFAS training exercises in the Study Area, it is unlikely that marine mammals would ever sustain a TTS from MFAS that alters their sensitivity by more than 20 dB for more than a few days (and any incident of TTS would likely be far less severe due to the short duration of the majority of the exercises and the speed of a typical vessel). Also, for the same reasons discussed in the Diel Cycle section, and because of the short distance within which animals would need to approach the sound source, it is unlikely that animals would be exposed to the levels necessary to induce TTS in subsequent time periods such that their recovery is impeded. Additionally, though the frequency range of TTS that marine mammals might sustain would overlap with some of the frequency ranges of their vocalization types, the frequency range of TTS from MFAS (the source from which TTS would most likely be sustained because the higher source level and slower attenuation make it more likely that an animal would be exposed to a higher received level) would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations. If impaired, marine mammals would typically be aware of their impairment and implement behaviors to compensate (see Acoustic Masking or Communication Impairment section), though these compensations may incur energetic costs.

Acoustic Masking or Communication Impairment

Masking only occurs during the time of the signal (and potential secondary arrivals of indirect rays), versus TTS, which continues beyond the duration of the signal. Standard MFAS nominally pings every 50 seconds for hull-mounted sources. For the sources for which we know the pulse length, most are significantly shorter than hull-mounted active sonar, on the order of several microseconds to tens of microseconds. For hull-mounted active sonar, though some of the vocalizations that marine mammals make are less than one second long, there is only a 1 in 50 chance that they would occur exactly when the ping was received, and when vocalizations are longer than one second, only parts of them are masked. Alternately, when the pulses are only several microseconds long, the majority of most animals' vocalizations would not be masked. Masking effects from MFAS/HFAS are expected to be minimal. If masking or communication impairment were to occur briefly, it would be in the frequency range of MFAS, which overlaps with some marine mammal vocalizations; however, it would likely not mask the entirety of any particular vocalization or communication series because the signal length, frequency, and duty cycle of the MFAS/HFAS signal does not perfectly mimic the characteristics of any marine mammal's vocalizations.

PTS, Injury, or Mortality

NMFS believes that many marine mammals would deliberately avoid exposing themselves to the received levels of active sonar necessary to induce injury by moving away from or at least modifying their path to avoid a close approach. Additionally, in the unlikely event that an animal approaches the sonar vessel at a close distance, NMFS believes that the mitigation measures (i.e., shutdown/powerdown zones for MFAS/HFAS) would typically ensure that animals would not be exposed to injurious levels of sound. As discussed previously, the Navy utilizes both aerial (when available) and passive acoustic monitoring (during all ASW exercises) in addition to watchstanders on vessels to detect marine mammals for mitigation implementation.

If a marine mammal is able to approach a surface vessel within the distance necessary to incur PTS, the likely speed of the vessel (nominal 10–15 knots) would make it very difficult for the animal to remain in range long enough to accumulate enough energy to result in more than a mild case of PTS. As mentioned previously and in relation to TTS, the likely consequences to the health of an individual that incurs PTS can range from mild to more serious dependent upon the degree of PTS and the frequency band it is in, and many animals are able to compensate for the shift, although it may include energetic costs.

As discussed previously, marine mammals (especially beaked whales) could potentially respond to MFAS at a received level lower than the injury threshold in a manner that indirectly results in the animals stranding. The exact mechanism of this potential response, behavioral or physiological, is not known. When naval exercises have been associated with strandings in the past, it has typically been when three or more vessels are operating simultaneously, in the presence of a strong surface duct, and in areas of constricted channels, semi-enclosed areas, and/or steep bathymetry. Based on the number of occurrences where strandings have been definitively associated with military active sonar versus the number of hours of active sonar training that have been conducted, we believe that the probability is small that this will occur. Lastly, an active sonar shutdown protocol for strandings involving live animals milling in the water minimizes the chances that these types of events turn into mortalities.

While NMFS does not expect any mortalities from impulsive sources to occur, we are proposing to authorize takes by mortality of a limited number of small odontocetes and pinnipeds from training and testing activities. Based on previous vessel strikes in the Study Area, NMFS is also proposing to authorize takes by mortality of a limited number of large whales from vessel strike. As described previously, although we have a good sense of how many marine mammals the Navy may strike over the course of 5 years (and it is much smaller than the 15 large whale mortalities requested for all training and testing activities), the species distribution is unpredictable. Thus, we have analyzed the possibility that all large whale takes requested in one year may be of the same species. However, the number of takes authorized of a single species is limited (for example, no more than three takes of any one of the following species may occur in a single year: blue whale, fin whale, humpback whale, sei whale, and sperm whale). Over the first three years of the existing HRC and SOCAL rules, five mortalities have resulted from activities that would be covered by the HSTT rule: two mortalities from ship strike, and three confirmed mortalities from explosive exercises (which occurred before the monitoring was modified to its current form, which better protects animals when time-delay firing devices are used). The number of mortalities from vessel strikes are not expected to be an increase over the past decade, but rather they are being addressed under the incidental take authorization for the first time.

Species-Specific Analysis

In the discussions below, the ''acoustic analysis'' refers to the Navy's model results and post-model analysis. The Navy performed a quantitative analysis to estimate the number of marine mammals that could be harassed by acoustic sources or explosives used during Navy training and testing activities. Inputs to the quantitative analysis included marine mammal density estimates; marine mammal depth occurrence distributions; oceanographic and environmental data; marine mammal hearing data; and criteria and thresholds for levels of potential effects. Marine mammal densities used in the model may overestimate actual densities when species data is limited and for species with seasonal migrations (e.g., humpbacks, blue whales, Hawaiian stock of fin whales, sei whales, gray whales). The quantitative analysis consists of computer modeled estimates and a post-model analysis to determine the number of potential mortalities and harassments. The model calculates sound energy propagation from sonars, other active acoustic sources, and explosives during naval activities; the sound or impulse received by animat dosimeters representing marine mammals distributed in the area around the modeled activity; and whether the sound or impulse received by a marine mammal exceeds the thresholds for effects. The model estimates are then further analyzed to consider animal avoidance and implementation of mitigation measures, resulting in final estimates of effects due to Navy training and testing. It is important to note that the Navy's take estimates represent the total number of takes and not the number of individuals taken, as a single individual may be taken multiple times over the course of a year.

Although this more complex computer modeling approach accounts for various environmental factors affecting acoustic propagation, the current software tools do not consider the likelihood that a marine mammal would attempt to avoid repeated exposures to a sound or avoid an area of intense activity where a training or testing event may be focused. Additionally, the software tools do not consider the implementation of mitigation (e.g., stopping sonar transmissions when a marine mammal is within a certain distance of a ship or range clearance prior to detonations). In both of these situations, naval activities are modeled as though an activity would occur regardless of proximity to marine mammals and without any horizontal movement by the animal away from the sound source or human activities (e.g., without accounting for likely animal avoidance). The initial model results overestimate the number of takes (as described previously), primarily by behavioral disturbance. The final step of the quantitative analysis of acoustic effects is to consider the implementation of mitigation and the possibility that marine mammals would avoid continued or repeated sound exposures. NMFS provided input to the Navy on this process and the Navy's qualitative analysis is described in detail in section 6.3 of their LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

Mysticetes—The Navy's acoustic analysis indicates that numerous exposures of mysticete species to sound levels likely to result in Level B harassment may occur, mostly from sonar and other active acoustic stressors associated with mostly training and

some testing activities in the HSTT Study Area. Of these species, humpback, blue, fin, and sei whales are listed as endangered under the ESA. Level B takes are anticipated to be in the form of behavioral harassment and no injurious takes of humpback, blue, fin, or sei whales from sonar, or other active acoustic stressors are expected. The majority of acoustic effects to mysticetes from sonar and other active sound sources during training activities would be primarily from anti-submarine warfare events involving surface ships and hull mounted (mid-frequency) sonar. Most Level B harassments to mysticetes from sonar would result from received levels between 144 and 162 SPL. High-frequency systems are not within mysticetes' ideal hearing range and it is unlikely that they would cause a significant behavioral reaction. The only mysticete species that may be exposed to sound or energy from explosions resulting in the possibility of PTS is the gray whale. Exposures would occur in the SOCAL Range Complex during the cool season However, the Navy's proposed mitigation zones for explosive activities extend beyond the predicted maximum range to PTS. The implementation of mitigation and the sightability of mysticetes (due to their large size) reduces the potential for a significant behavioral reaction or a threshold shift to occur. Furthermore, gray whales in particular should be easier to sight because they would be migrating through the HSTT Study Area and there is often more than one whale in an area at the same time.

In addition to Level B takes, the Navy is requesting no more than 12 large whale mortalities over 5 years (no more than 4 large whale mortalities in a given year) due to vessel strike during training activities and no more than three large whale mortalities over 5 years (no more than 2 large whale mortalities in any given year) due to vessel strike during testing activities. However, no more than three mortalities of any of the following species would be authorized to occur in a given year: blue whale, fin whale, humpback whale, sei whale, and sperm whale. The Navy provided a detailed analysis of strike data in section 6.3.4 of their LOA application. Marine mammal mortalities were not previously analyzed by NMFS in the 2009 rulemakings for HRC and the SOCAL Range Complex. However, over a period of 20 years (1991 to 2010), there have been 16 Navy vessel strikes in the SOCAL Range Complex and five Navy vessel strikes in HRC. No single 5-year period exceeded ten whales struck within SOCAL and HRC. The number of mortalities from vessel strike are not expected to be an increase over the past decade, but rather NMFS is proposing to authorize these takes for the first time.

Areas of high humpback whale density in the HRC were discussed earlier in this document. Since humpback whales migrate to the north in the summer, impacts are predicted only for the cool season in the HSTT Study Area. While the humpback breeding areas around Hawaii are important, NMFS has determined that MFAS training in these areas is rare and infrequent and should not affect annual rates of recruitment or survival. As discussed in the Proposed Mitigation section of this document, the Navy has agreed that training exercises in the designated Humpback Whale Cautionary Area would require a much higher level of clearance than is normal practice in planning and conducting MFAS training. Furthermore, no reported cases of harmful effects to humpback whales attributed to MFAS use have occurred during the Navy's 40-plus years of training in the waters off the Hawaiian Islands. Coincident with this use of MFAS, abundance estimates reflect an annual increase in the humpback whale stock (Mobley 2001a, 2004). A recent long-term study of humpback whales in Hawaiian waters shows long-term fidelity to the Hawaiian winter grounds, with many showing sighting spans ranging from 10 to 32 years (Herman *et al.,* 2011). The overall abundance of humpback whales in the north Pacific has continued to increase and is now greater than some pre-whaling abundance estimates (Barlow *et al.,* 2011). The California, Oregon, Washington stock of humpback whales use the waters within the Southern California portion of the HSTT Study Area as a summer feeding ground. No areas of specific importance for reproduction or feeding for other mysticetes have been identified in the HSTT Study Area.

Sperm Whales—The Navy's acoustic analysis indicates that 3,595 exposures of sperm whales to sound levels likely to result in Level B harassment may occur in the HSTT Study Area from sonar or other active acoustic stressors during training and testing activities. These Level B takes are anticipated to be in the form of behavioral harassment and no injurious takes of sperm whales from sonar, other active acoustic stressors, or explosives are requested or proposed for authorization. Sperm whales have shown resilience to acoustic and human disturbance, although they may react to sound sources and activities within a few kilometers. Sperm whales that are exposed to activities that involve the use of sonar and other active acoustic sources may alert, ignore the stimulus, avoid the area by swimming away or diving, or display aggressive behavior. Some (but not all) sperm whale vocalizations might overlap with the MFAS/HFAS TTS frequency range, which could temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFAS/HFAS. The majority of Level B takes are expected to be in the form of mild responses. No areas of specific importance for reproduction or feeding for sperm whales have been identified in the HSTT Study Area.

Pygmy and Dwarf Sperm Whales—The Navy's acoustic analysis indicates that 25,081 exposures of pygmy and dwarf sperm whales to sound levels likely to result in Level B harassment may occur from sonar and other active acoustic stressors and explosives associated with training and testing activities in the HRC. In SOCAL, the two *Kogia* species are managed as a single stock and management unit and up to 14,175 exposures to sound levels likely to result in Level B harassment may occur from sonar and other active acoustic stressors and explosives associated with training and testing activities. The Navy's acoustic analysis also indicates that 74 exposures of dwarf sperm whale and one exposure of pygmy sperm whale to sound levels likely to result in Level A harassment may occur from active acoustic stressors and explosions in HRC and 39 exposures of *Kogia* to sound levels likely to result in Level A harassment may occur from active acoustic stressors or explosions in SOCAL. Behavioral responses can range from a mild orienting response, or a shifting of attention, to flight and panic. These species tend to avoid human activity and presumably anthropogenic sounds. Pygmy and dwarm sperm whales may startle and leave the immediate area of activity, reducing the potential impacts. Significant behavioral reactions seem more likely than with most other odontocetes; however, it is unlikely that animals would receive multiple exposures over a short period of time, allowing animals to recover lost resources (e.g., food) or opportunities (e.g., mating). Therefore, long-term consequences for individual Kogia or their respective populations are not expected. Furthermore, many explosions actually occur upon impact

with above-water targets. However, sources such as these were modeled as exploding at 1 meter depth, which overestimates the potential effects.

Data from several sources, which are summarized and cited on NOAA's Cetacean and Sound Mapping Web site (*cetsound.noaa.gov*) indicate that there are resident populations of dwarf sperm whales (among other species) off the western side of the Big Island of Hawaii. As discussed earlier, we highlight the presence of resident populations in the interest of helping to support decisions that ensure that these small populations, limited to a small area of preferred habitat, are not exposed to concentrations of activities within their ranges that have the potential to impact a large portion of the stock/species over longer amounts of time that could have detrimental consequences to the stock/species. However, NMFS has reviewed the Navy's exercise reports and considered/discussed their historical level of activity in the area where these resident populations are concentrated, which is very low, and concluded that time/area restrictions would not afford much reduction of impacts in this location and are not necessary at this point. If future monitoring and exercise reports suggest that increased operations are overlapping with these resident populations, NMFS would revisit the consideration of time/area limitations around these populations.

Dall's Porpoise—The Navy's acoustic analysis indicates that 42,106 exposures of Dall's porpoise to sound levels likely to result in Level B Harassment may occur from sonar and other active acoustic stressors and explosives associated with training and testing activities in the SOCAL Range Complex. The analysis also indicates that 79 exposures to sound levels likely to result in Level A Harassment may occur from sonar and other active acoustic stressors.

Predicted impacts to odontocetes from activities from sonar and other active acoustic sources are mostly from anti-submarine warfare events involving surface ships and hull mounted sonar. For high-frequency cetaceans, such as Dall's porpoise, ranges to TTS for multiple pings can, under certain conditions, reach over 10 km from a source. Activities involving ASW training often involve multiple participants and activities associated with the event. Sensitive species, such as Dall's porpoise, may avoid the area for the duration of the event and then return, allowing the animal to recover from any energy expenditure or missed resources. However, the Navy's proposed mitigation has a provision that allows the Navy to continue operation of MFAS if the animals are clearly bow-riding even after the Navy has initially maneuvered to try and avoid closing with the animals. Since these animals sometimes bow-ride, they could potentially be exposed to levels associated with TTS. Some dolphin vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, for the reasons described in the beginning of this section, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS.

Ranges to PTS are on average about 855 meters from the largest explosive (Bin E12) for a high-frequency cetacean such as Dall's porpoise, which is less than the proposed mitigation zone for most explosive source bins. The metrics used to estimate PTS are based on the animal's mass; the smaller an animal, the more susceptible that individual is to these effects. In the Navy's analysis, all individuals of a given species were assigned the weight of that species' newborn calf. Since many individual Dall's porpoise are obviously larger than a newborn calf, this assumption causes the acoustic model to overestimate the potential effects. Threshold shifts do not necessarily affect all hearing frequencies equally, so some threshold shifts may not interfere with an animal hearing biologically relevant sounds.

Odontocetes, such as Dall's porpoise, may further minimize sound exposure during avoidance due to directional hearing. No areas of specific importance for reproduction or feeding for Dall's porpoise have been identified in the HSTT Study Area.

Beaked Whales—The Navy's acoustic analysis indicates that numerous exposures of beaked whale species to sound levels likely to result in Level B Harassment may occur from sonar and other active acoustic stressors associated with training and testing activities. Research and observations show that if beaked whales are exposed to sonar or other active acoustic sources they may startle, break off feeding dives, and avoid the area of the sound source to levels of 157 dB (McCarthy *et al.,* 2011). Furthermore, in research done at the Navy's instrumented tracking range in the Bahamas, animals leave the immediate area of the anti-submarine warfare training exercise, but return within a few days after the event ends. At the Bahamas range and at Navy instrumented ranges in the HSTT Study Area that have been operating for decades (in Hawaii north of Kauai and in SOCAL west of San Clemente Island), populations of beaked whales appear to be stable. The analysis also indicates that no exposures to sound levels likely to result in Level A Harassment would occur. However, while the Navy's model did not quantitatively predict any mortalities of beaked whales, the Navy is requesting a limited number of takes by mortality given the sensitivities these species may have to anthropogenic activities. Almost 40 years of conducting similar exercises in the HSTT Study Area without observed incident indicates that injury or mortality are not expected to occur as a result of Navy activities.

Some beaked whale vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS. No beaked whales are predicted to be exposed to MFAS/HFAS sound levels associated with PTS or injury. No areas of specific importance for reproduction or feeding for beaked whales have been identified in the HSTT Study Area.

As discussed previously, scientific uncertainty exists regarding the potential contributing causes of beaked whale strandings and the exact behavioral or physiological mechanisms that can potentially lead to the ultimate physical effects (stranding and/or death) that have been documented in a few cases. Although NMFS does not expect injury or mortality of any of these species to occur as a result of the MFAS/HFAS training exercises, there remains the potential for the operation of MFAS to contribute to the mortality of beaked whales. Consequently, NMFS intends to authorize mortality and we consider the 10 potential mortalities from across the seven species potentially effected over the course of 5 years in our negligible impact determination (NMFS only intends to authorize a total of 10 beaked whale mortality takes, but since they could be of any of the species, we consider the effects of 10 mortalities of any of the seven species).

False Killer Whale—The Navy's acoustic analysis indicates that 761 exposures of false killer whales (53 exposures to the Hawaii insular stock) to sound levels likely to result in Level B harassment may occur from sonar or other active acoustic stressors associated with training and testing activities in the HRC. False killer whales are not

expected to be present within the SOCAL Range Complex. These takes are anticipated to be in the form of behavioral harassment and no injurious takes of false killer whales from active acoustic stressors or explosives are requested or proposed for authorization. Behavioral responses can range from a mild orienting response, or a shifting of attention, to flight and panic.

No areas of specific importance for reproduction or feeding for false killer whales have been identified in the HSTT Study Area.

Short-beaked Common Dolphin—The Navy's acoustic analysis indicates that 1,122,030 exposures of short-beaked common dolphins to sound levels likely to result in Level B Harassment may occur from sonar and other active acoustic stressors associated with training and testing activities and sound or energy from explosions. Analysis also indicates that 110 exposures to sound levels likely to result in Level A Harassment may occur from active acoustic stressors and sound or energy from explosions. Up to 16 short-beaked common dolphin mortalities are also requested as part of an unspecified ''any small odontocete and pinniped species'' take. Short-beaked common dolphins are one of the most abundant dolphin species in SOCAL. Behavioral responses can range from alerting, to changing their behavior or vocalizations, to avoiding the sound source by swimming away or diving. The high take numbers are due in part to an increase in expended materials. However, this species generally travels in large pods and should be visible from a distance in order to implement mitigation measures and reduce potential impacts.

No areas of specific importance for reproduction or feeding for short-beaked common dolphins have been identified in the HSTT Study Area.

California Sea Lion—The Navy's acoustic analysis indicates that 139,999 exposures of California sea lions to sound levels likely to result in Level B harassment may occur from sonar and other active acoustic stressors associated with training and testing activities and sound or energy from explosions. Analysis also indicates that 42 exposures to sound levels likely to result in Level A Harassment may occur from active acoustic stressors and sound or energy from explosions. Up to 10 California sea lion mortalities are also requested as part of an unspecified ''any small odontocete and pinniped species'' take. California sea lions are the most abundant pinniped species along the California coast. Research and observations show that pinnipeds in the water are tolerant of anthropogenic noise and activity. California sea lions may not react at all until the sound source is approaching within a few hundred meters and then may alert, ignore the stimulus, change their behavior, or avoid the immediate area by swimming away or diving. Significant behavioral reactions are not expected, based on previous observations. The high take numbers are due in part to the explosive criteria being based on newborn calf weights. Assuming that the majority of the population is larger than a newborn calf, the model overestimates the effects to California sea lions. The criteria for slight lung injury are also very conservative and may overpredict the effects. Research and observations show that pinnipeds in the water are tolerant of anthropogenic noise and activity. They may react in a number of ways depending on their experience with the sound source and what activity they are engaged in at the time of the exposure.

Northern Fur Seal—The Navy's acoustic analysis indicates that 21,171 exposures of northern fur seals to sound levels likely to result in Level B Harassment may occur from sonar and other active acoustic stressors associated with training and testing activities in the SOCAL Range Complex and sound or energy from explosions. Analysis also indicates that eight exposures to sound levels likely to result in Level A Harassment may occur from active acoustic stressors and sound or energy from explosions. Northern fur seals are common in SOCAL. Behavioral responses can range from a mild orienting response, or a shifting of attention, to flight and panic. Research and observations show that pinnipeds in the water are tolerant of anthropogenic noise and activity. They may react in a number of ways depending on their experience with the sound source and what activity they are engaged in at the time of the exposure.

A small population breeds on San Miguel Island, outside of the SOCAL Range Complex.

Northern Elephant Seal—The Navy's acoustic analysis indicates that 25,228 exposures of northern elephant seals to sound levels likely to result in Level B Harassment may occur from sonar and other active acoustic stressors associated with training and testing activities in the SOCAL Range Complex and sound or energy from explosions. Analysis also indicates that 27 exposures to sound levels likely to result in Level A Harassment may occur from active acoustic stressors and sound or energy from explosions. The majority of predicted effects would be from anti-submarine warfare events involving surface ships, submarines, and hull mounted sonar, while a small percentage of effects would be from mine countermeasure events. Northern elephant seals are common in SOCAL and the proposed take is less than 21 percent of the California breeding population. Behavioral responses can range from a mild orienting response, or a shifting of attention, to flight and panic. Research and observations show that pinnipeds in the water are tolerant of anthropogenic noise and activity. They may react in a number of ways depending on their experience with the sound source and what activity they are engaged in at the time of the exposure.

Different age classes of northern elephant seals haul out on the Channel Islands within SOCAL and spend 8–10 months at sea each year.

Hawaiian Monk Seal—The Navy's acoustic analysis indicates that 1,650 exposures of Hawaiian monk seals (listed as endangered under the ESA) to sound levels likely to result in Level B harassment may occur from sonar or other active acoustic stressors associated with training and testing activities in HRC. No exposures to sound levels likely to result in Level A harassment are expected to occur and takes from injury or mortality are not requested or proposed for authorization. The majority of exposures from testing have ranges to TTS less than 50 m. Behavioral effects are not expected to be significant because (1) Significant behavioral effects are more likely at higher received levels within a few kilometers of the source, (2) Hawaiian monk seals may avoid the activity area; and (3) mitigation measures would be implemented. Hawaiian monk seals predominantly occur in the Northwestern Hawaiian Islands and the Papahanaumokuakea National Marine Monument, which is outside of the main Hawaii Operating Area. Ranges to TTS for hull mounted sonars can be on the order of several kilometers for monk seals, and some behavioral impacts could take place at distances exceeding 173 km, although significant behavioral effects are much more likely at higher received levels within a few kilometers of the sound source and therefore, the majority of behavioral effects are not expected to be significant. Activities involving sound or energy from sonar and other active acoustic sources would not occur on shore in designated Hawaiian monk seal critical habitat where haul out and resting behavior occurs and would have no effect on critical habitat at sea.

Preliminary Determination

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat and dependent upon the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that the total taking from Navy training and testing exercises in the HSTT Study Area will have a negligible impact on the affected species or stocks. NMFS has proposed regulations for these exercises that prescribe the means of effecting the least practicable adverse impact on marine mammals and their habitat and set forth requirements pertaining to the monitoring and reporting of that taking.

Subsistence Harvest of Marine Mammals

NMFS has preliminarily determined that the issuance of 5-year regulations and subsequent LOAs for Navy training and testing exercises in the HSTT Study Area would not have an unmitigable adverse impact on the availability of the affected species or stocks for subsistence use, since there are no such uses in the specified area.

ESA

There are eight marine mammal species under NMFS jurisdiction that are listed as endangered or threatened under the ESA with confirmed or possible occurrence in the Study Area: blue whale, humpback whale, fin whale, sei whale, sperm whale, the Hawaiian insular stock of false killer whale, Guadalupe fur seal, and Hawaiian monk seal. The Navy will consult with NMFS pursuant to section 7 of the ESA, and NMFS will also consult internally on the issuance of LOAs under section 101(a)(5)(A) of the MMPA for HSTT activities. Consultation will be concluded prior to a determination on the issuance of the final rule and an LOA.

NMSA

Some Navy activities may potentially affect resources within National Marine Sanctuaries. The Navy will continue to analyze potential impacts to sanctuary resources and has provided the analysis in the Navy's HSTT DEIS/OEIS to NOAA's Office of National Marine Sanctuaries. The Navy will initiate consultation with NOAA's Office of National Marine Sanctuaries pursuant to the requirements of the NMSA as warranted by ongoing analysis of the activities and their effects on sanctuary resources.

NEPA

NMFS has participated as a cooperating agency on the HSTT DEIS/OEIS, which was published on May 11, 2012. The HSTT DEIS/OEIS is posted on NMFS' Web site: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.* NMFS intends to adopt the Navy's final HSTT EIS/OEIS (FEIS/OEIS), if adequate and appropriate. Currently, we believe that the adoption of the Navy's HSTT FEIS/OEIS will allow NMFS to meet its responsibilities under NEPA for the issuance of regulations and LOAs for HSTT. If the Navy's HSTT FEIS/OEIS is deemed inadequate, NMFS would supplement the existing analysis to ensure that we comply with NEPA prior to the issuance of the final rule or LOA.

Classification

The Office of Management and Budget has determined that this proposed rule is not significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act (RFA), the Chief Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The RFA requires federal agencies to prepare an analysis of a rule's impact on small entities whenever the agency is required to publish a notice of proposed rulemaking. However, a federal agency may certify, pursuant to 5 U.S.C. 605 (b), that the action will not have a significant economic impact on a substantial number of small entities. The Navy is the sole entity that would be affected by this rulemaking, and the Navy is not a small governmental jurisdiction, small organization, or small business, as defined by the RFA. Any requirements imposed by an LOA issued pursuant to these regulations, and any monitoring or reporting requirements imposed by these regulations, would be applicable only to the Navy. NMFS does not expect the issuance of these regulations or the associated LOAs to result in any impacts to small entities pursuant to the RFA. Because this action, if adopted, would directly affect the Navy and not a small entity, NMFS concludes the action would not result in a significant economic impact on a substantial number of small entities.

List of Subjects in 50 CFR Part 218

Exports, Fish, Imports, Incidental take, Indians, Labeling, Marine mammals, Navy, Penalties, Reporting and recordkeeping requirements, Seafood, Sonar, Transportation.

Dated: January 23, 2013.

Alan D. Risenhoover,

Director, Office of Sustainable Fisheries, performing the functions and duties of the Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 218 is proposed to be amended amended as follows:

PART 218—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

■ 1. The authority citation for part 218 continues to read as follow:

Authority: 16 U.S.C. 1361 *et seq.*

■ 2. Subpart H is added to part 218 to read as follows:

Subpart H—Taking and Importing Marine Mammals; U.S. Navy's Hawaii-Southern California Training and Testing (HSTT)

Sec.

Subpart H—Taking and Importing Marine Mammals; U.S. Navy's Hawaii-Southern California Training and Testing (HSTT)

§ 218.70 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to the U.S. Navy for the taking of marine mammals that occurs in the area outlined in paragraph (b) of this section and that occurs incidental to the activities described in paragraph (c) of this section.

(b) The taking of marine mammals by the Navy is only authorized if it occurs within the HSTT Study Area, which is comprised of established operating and warning areas across the north-central Pacific Ocean, from Southern California west to Hawaii and the International Date Line (see Figure 1–1 in the Navy's application). The Study Area includes three existing range complexes: the Southern California (SOCAL) Range Complex, Hawaii Range Complex

(HRC), and Silver Strand Training Complex (SSTC). In addition, the Study Area also includes Navy pierside locations where sonar maintenance and testing occurs within the Study Area, and areas on the high seas that are not part of the range complexes, where training and testing may occur during vessel transit.

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the following activities within the designated amounts of use:

(1) Non-impulsive Sources Used During Training:

(i) Mid-frequency (MF) Source Classes:

(A) MF1—an average of 11,588 hours per year.

(B) MF1K—an average of 88 hours per year.

(C) MF2—an average of 3,060 hours per year.

(D) MF2K—an average of 34 hours per year.

(E) MF3—an average of 2,336 hours per year.

(F) MF4—an average of 888 hours per year.

(G) MF5—an average of 13,718 items per year.

(H) MF11—an average of 1,120 hours per year.

(I) MF12—an average of 1,094 hours per year.

(ii) High-frequency (HF) and Very High-frequency (VHF) Source Classes:

(A) HF1—an average of 1,754 hours per year.

(B) HF4—an average of 4,848 hours per year.

(iii) Anti-Submarine Warfare (ASW) Source Classes:

(A) ASW1—an average of 224 hours per year.

(B) ASW2—an average of 1,800 items per year.

(C) ASW3—an average of 16,561 hours per year.

(D) ASW4—an average of 1,540 items per year.

(iv) Torpedoes (TORP) Source Classes:

(A) TORP1—an average of 170 items per year.

(B) TORP2—an average of 400 items per year.

(2) Non-impulsive Sources Used During Testing:

(i) Low-frequency (LF) Source Classes:

(A) LF4—an average of 52 hours per year.

(B) LF5—an average of 2,160 hours per year.

(C) LF6—an average of 192 hours per year.

(ii) Mid-frequency (MF):

(A) MF1—an average of 180 hours per year.

(B) MF1K—an average of 18 hours per year.

(C) MF2—an average of 84 hours per year.

(D) MF3—an average of 392 hours per year.

(E) MF4—an average of 693 hours per year.

(F) MF5—an average of 5,024 items per year.

(G) MF6—an average of 540 items per year.

(H) MF8—an average of 2 hours per year.

(I) MF9—an average of 3,039 hours per year.

(J) MF10—an average of 35 hours per year.

(K) MF12—an average of 336 hours per year.

(iii) High-frequency (HF) and Very High-frequency (VHF):

(A) HF1—an average of 1,025 hours per year.

(B) HF3—an average of 273 hours per year.

(C) HF4—an average of 1,336 hours per year.

(D) HF5—an average of 1,094 hours per year.

(E) HF6—an average of 3,460 hours per year.

(iv) ASW:

(A) ASW1—an average of 224 hours per year.

(B) ASW2—an average of 2,260 items per year.

(C) ASW2H—an average of 255 hours per year.

(D) ASW3—an average of 1,278 hours per year.

(E) ASW4—an average of 477 items per year.

(v) TORP:

(A) TORP1—an average of 701 items per year.

(B) TORP2—an average of 732 items per year.

(vi) Acoustic Modems (M):

(A) M3—an average of 4,995 hours per year.

(vii) Swimmer Detection Sonar (SD):

(A) SD1—an average of 38 hours per year.

(viii) Airguns (AG):

(A) AG—an average of 5 airgun uses per year.

(ix) Synthetic Aperture Sonar (SAS):

(A) SAS1—an average of 2,700 hours per year.

(B) SAS2—an average of 4,956 hours per year.

(C) SAS3—an average of 3,360 hours per year.

(3) Annual Number of Impulsive Source Detonations During Training:

(i) Explosive Classes:

(A) E1 (0.1 to 0.25 lb NEW)—an average of 19,840 detonations per year.

(B) E2 (1.26 to 0.5 lb NEW)—an average of 1,044 detonations per year.

(C) E3 (0.6 to 2.5 lb NEW)—an average of 3,020 detonations per year.

(D) E4 (>2.5 to 5 lb NEW)—an average of 668 detonations per year.

(E) E5 (>5 to 10 lb NEW)—an average of 8,154 detonations per year.

(F) E6 (>10 to 20 lb NEW)—an average of 538 detonations per year.

(G) E7 (>20 to 60 lb NEW)—an average of 407 detonations per year.

(H) E8 (>60 to 100 lb NEW)—an average of 64 detonations per year.

(I) E9 (>100 to 250 lb NEW)—an average of 16 detonations per year.

(J) E10 (>250 to 500 lb NEW)—an average of 19 detonations per year.

(K) E11 (>500 to 650 lb NEW)—an average of 8 detonations per year.

(L) E12 (>650 to 1,000 lb NEW)—an average of 224 detonations per year.

(M) E13 (>1,000 to 1,740 lb NEW)—an average of 9 detonations per year.

(ii) [Reserved]

(4) Impulsive Source Detonations During Testing:

(i) Explosive Classes:

(A) E1 (0.1 to 0.25 lb NEW)—an average of 14,501 detonations per year.

(B) E2 (0.26 to 0.5 lb NEW)—an average of 0 detonations per year.

(C) E3 (0.6 to 2.5 lb NEW)—an average of 2,990 detonations per year.

(D) E4 (>2.5 to 5 lb NEW)—an average of 753 detonations per year.

(E) E5 (>5 to 10 lb NEW)—an average of 202 detonations per year.

(F) E6 (>10 to 20 lb NEW)—an average of 37 detonations per year.

(G) E7 (>20 to 60 lb NEW)—an average of 21 detonations per year.

(H) E8 (>60 to 100 lb NEW)—an average of 12 detonations per year.

(I) E9 (>100 to 250 lb NEW)—an average of 0 detonations per year.

(J) E10 (>250 to 500 lb NEW)—an average of 31 detonations per year.

(K) E11 (>500 to 650 lb NEW)—an average of 14 detonations per year.

(L) E12 (>650 to 1,000 lb NEW)—an average of 0 detonations per year.

(M) E13 (>1,000 to 1,740 lb NEW)—an average of 0 detonations per year.

(ii) [Reserved]

§ 218.71 Effective dates and definitions.

(a) Regulations are effective January 25, 2013 through Janaury 25, 2018.

(b) The following definitions are utilized in these regulations:

(1) *Uncommon Stranding Event (USE)*—A stranding event that takes place during a major training exercise (MTE) and involves any one of the following:

(i) Two or more individuals of any cetacean species (not including mother/calf pairs), unless of species of concern listed in § 218.71(b)(1)(ii) found dead or live on shore within a 2-day period and

occurring within 30 miles of one another.

(ii) A single individual or mother/calf pair of any of the following marine mammals of concern: beaked whale of any species, *Kogia* spp., Risso's dolphin, melon-headed whale, pilot whale, humpback whale, sperm whale, blue whale, fin whale, sei whale, or monk seal.

(iii) A group of two or more cetaceans of any species exhibiting indicators of distress.

(2) *Shutdown*—The cessation of MFAS/HFAS operation or detonation of explosives within 14 nautical miles of any live, in the water, animal involved in a USE.

§ 218.72 Permissible methods of taking.

(a) Under Letters of Authorization (LOAs) issued pursuant to § 218.77, the Holder of the Letter of Authorization may incidentally, but not intentionally, take marine mammals within the area described in § 218.70, provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate LOA.

(b) The activities identified in § 218.70(c) must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammals and their habitat.

(c) The incidental take of marine mammals under the activities identified in § 218.70(c) is limited to the following species, by the identified method of take and the indicated number of times:

(1) Level B Harassment for all Training Activities:

(i) Mysticetes:

(A) Blue whale (*Balaenoptera musculus*)—21,559 (an average of 4,312 per year).

(B) Bryde's whale (*Balaenoptera edeni*)—1,197 (an average of 240 per year).

(C) Fin whale (*Balaenoptera physalus*)—8,531 (an average of 1,707 per year).

(D) Gray whale (*Eschrichtius robustus*)—47,800 (an average of 9,560 per year).

(E) Humpback whale (*Megaptera novaeangliae*)—46,365 (an average of 9,273 per year).

(F) Minke whale (*Balaenoptera acutorostrata*)—4,030 (an average of 806 per year).

(G) Sei whale (*Balaenoptera borealis*)—2,996 (an average of 600 per year).

(ii) Odontocetes:

(A) Baird's beaked whale (*Berardius bairdii*)—22,100 (an average of 4,420 per year).

(B) Blainville's beaked whale (*Mesoplodon densirostris*)—48,172 (an average of 10,316 per year).

(C) Bottlenose dolphin (*Tursiops truncatus*)—158,590 (an average of 32,302 per year).

(D) Cuvier's beaked whale (*Ziphius cavirostris*)—314,790 (an average of 66,246 per year).

(E) Dwarf sperm whale (*Kogia sima*)—101,291 (an average of 22,359 per year).

(F) Dall's porpoise (*Phocoenoidea dalli*)—184,455 (an average of 36,891 per year).

(G) False killer whale (*Pseudorca crassidens*), Hawaii Insular—220 (an average of 49 per year).

(H) False killer whale (*Pseudorca crassidens*)—2,892 (an average of 657 per year).

(I) Fraser's dolphin (*Lagenodelphis hosei*)—8,809 (an average of 2,009 per year).

(J) Killer whale (*Orcinus orca*)—2,427 (an average of 503 per year).

(K) *Kogia* spp.—64,715 (an average of 12,943 per year).

(L) Long-beaked common dolphin (*Delphinus capensis*)—365,565 (an average of 73,113 per year).

(M) Longman's beaked whale (*Indopacetus pacificus*)—17,296 (an average of 3,666 per year).

(N) Melon-headed whale (*Peponocephala electra*)—6,733 (an average of 1,511 per year).

(O) *Mesoplodon* beaked whales—9,970 (an average of 1,994 per year).

(P) Northern right whale dolphin (*Lissodelphis borealis*)—257,980 (an average of 51,596 per year).

(Q) Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—192,335 (an average of 38,467 per year).

(R) Pantropical spotted dolphin (*Stenella attenuata*)—48,429 (an average of 10,887 per year).

(S) Pygmy killer whale (*Feresa attenuata*)—2,603 (an average of 571 per year).

(T) Pygmy sperm whale (*Kogia breviceps*)—1,093 (an average of 229 per year).

(U) Risso's dolphin (*Grampus griseus*)—437,707 (an average of 87,649 per year).

(V) Rough-toothed dolphin (*Steno bredanensis*)—22,765 (an average of 5,131 per year).

(W) Short-beaked common dolphin (*Delphinus delphis*)—4,996,410 (an average of 999,282 per year).

(X) Short-finned pilot whale (*Globicephala macrorhynchus*)—42,300 (an average of 9,458 per year).

(Y) Sperm whale (*Physeter macrocephalus*)—15,920 (an average of 3,332 per year).

(Z) Spinner dolphin (*Stenella longirostris*)—11,060 (an average of 2,212 per year).

(AA) Striped dolphin (*Stenella coerulealba*)—33,147 (an average of 7,043 per year).

(iii) Pinnipeds:

(A) California sea lion (*Zalophus californianus*)—634,805 (an average of 126,961 per year).

(B) Guadalupe fur seal (*Arctocephalus townsendi*)—13,014 (an average of 2,603 per year).

(C) Harbor seal (*Phoca vitulina*)—29,530 (an average of 5,906 per year).

(D) Hawaiian monk seal (*Monachus schauinslandi*)—6,334 (an average of 1,292 per year).

(E) Northern elephant seal (*Mirounga angustirostris*)—112,580 (an average of 22,516 per year).

(F) Northern fur seal (*Callorhinus ursinus*)—100,415 (an average of 20,083 per year).

(2) Level A Harassment for all Training Activities:

(i) Mysticetes:

(A) Gray whale (*Eschrichtius robustus*)—10 (an average of 2 per year).

(B) [Reserved].

(ii) Odontocetes:

(A) Dwarf sperm whale (*Kogia sima*)—214 (an average of 46 per year).

(B) Dall's porpoise (*Phocoenoidea dalli*)—235 (an average of 47 per year).

(C) *Kogia* spp.—165 (an average of 33 per year).

(D) Long-beaked common dolphin (*Delphinus capensis*)—10 (an average of 2 per year).

(E) Northern right whale dolphin (*Lissodelphis borealis*)—5 (an average of 1 per year).

(F) Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—5 (an average of 1 per year).

(G) Risso's dolphin (*Grampus griseus*)—5 (an average of 1 per year).

(H) Short-beaked common dolphin (*Delphinus delphis*)—350 (an average of 70 per year).

(iii) Pinnipeds:

(A) California sea lion (*Zalophus californianus*)—125 (an average of 25 per year).

(B) Harbor seal (*Phoca vitulina*)—55 (an average of 11 per year).

(C) Northern elephant seal (*Mirounga angustirostris*)—110 (an average of 22 per year).

(D) Northern fur seal (*Callorhinus ursinus*)—25 (an average of 5 per year).

(3) Mortality for all Training Activities:

(i) No more than 35 mortalities (7 per year) applicable to any small odontocete or pinniped species from an impulse source.

(ii) No more than 10 beaked whale mortalities (2 per year).

(iii) No more than 12 large whale mortalities (no more than 4 in any given year) from vessel strike.

(4) Level B Harassment for all Testing Activities:

(i) Mysticetes:

(A) Blue whale (*Balaenoptera musculus*)—2,140 (an average of 428 per year).

(B) Bryde's whale (*Balaenoptera edeni*)—90 (an average of 18 per year).

(C) Fin whale (*Balaenoptera physalus*)—1,125 (an average of 225 per year).

(D) Gray whale (*Eschrichtius robustus*)—12,850 (an average of 2,570 per year).

(E) Humpback whale (*Megaptera novaeangliae*)—4,605 (an average of 921 per year).

(F) Minke whale (*Balaenoptera acutorostrata*)—395 (an average of 79 per year).

(G) Sei whale (*Balaenoptera borealis*)—255 (an average of 51 per year).

(ii) Odontocetes:

(A) Baird's beaked whale (*Berardius bairdii*)—5,225 (an average of 1,045 per year).

(B) Blainville's beaked whale (*Mesoplodon densirostris*)—4,800 (an average of 960 per year).

(C) Bottlenose dolphin (*Tursiops truncatus*)—17,565 (an average of 3,513 per year).

(D) Cuvier's beaked whale (*Ziphius cavirostris*)—34,340 (an average of 6,868 per year).

(E) Dwarf sperm whale (*Kogia sima*)—11,880 (an average of 2,376 per year).

(F) Dall's porpoise (*Phocoenoidea dalli*)—26,075 (an average of 5,215 per year).

(G) False killer whale (*Pseudorca crassidens*), Hawaii Insular—20 (an average of 4 per year).

(H) False killer whale (*Pseudorca crassidens*)—255 (an average of 51 per year).

(I) Fraser's dolphin (*Lagenodelphis hosei*)—225 (an average of 45 per year).

(J) Killer whale (*Orcinus orca*)—335 (an average of 67 per year).

(K) *Kogia* spp.—6,160 (an average of 1,232 per year).

(L) Long-beaked common dolphin (*Delphinus capensis*)—239,255 (an average of 47,851 per year).

(M) Longman's beaked whale (*Indopacetus pacificus*)—2,180 (an average of 436 per year).

(N) Melon-headed whale (*Peponocephala electra*)—620 (an average of 124 per year).

(O) Mesoplodon beaked whales—1,725 (an average of 345 per year).

(P) Northern right whale dolphin (*Lissodelphis borealis*)—28,645 (an average of 5,729 per year).

(Q) Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—24,620 (an average of 4,924 per year).

(R) Pantropical spotted dolphin (*Stenella attenuata*)—3,425 (an average of 685 per year).

(S) Pygmy killer whale (*Feresa attenuata*)—305 (an average of 61 per year).

(T) Pygmy sperm whale (*Kogia breviceps*)—585 (an average of 117 per year).

(U) Risso's dolphin (*Grampus griseus*)—44,260 (an average of 8,852 per year).

(V) Rough-toothed dolphin (*Steno bredanensis*)—2,050 (an average of 410 per year).

(W) Short-beaked common dolphin (*Delphinus delphis*)—613,740 (an average of 122,748 per year).

(X) Short-finned pilot whale (*Globicephala macrorhynchus*)—4,380 (an average of 876 per year).

(Y) Sperm whale (*Physeter macrocephalus*)—1,315 (an average of 263 per year).

(Z) Spinner dolphin (*Stenella longirostris*)—835 (an average of 167 per year).

(AA) Striped dolphin (*Stenella coerulealba*)—6,335 (an average of 1,267 per year).

(iii) Pinnipeds:

(A) California sea lion (*Zalophus californianus*)—65,190 (an average of 13,038 per year).

(B) Guadalupe fur seal (*Arctocephalus townsendi*)—1,345 (an average of 269 per year).

(C) Harbor seal (*Phoca vitulina*)—4,460 (an average of 892 per year).

(D) Hawaiian monk seal (*Monachus schauinslandi*)—1,790 (an average of 358 per year).

(E) Northern elephant seal (*Mirounga angustirostris*)—13,560 (an average of 2,712 per year).

(F) Northern fur seal (*Callorhinus ursinus*)—5,440 (an average of 1,088 per year).

(5) Level A Harassment for all Testing Activities:

(i) Mysticetes:

(A) Gray whale (*Eschrichtius robustus*)—5 (an average of 1 per year).

(B) [Reserved].

(ii) Odontocetes:

(A) Dwarf sperm whale (*Kogia sima*)—140 (an average of 28 per year).

(B) Dall's porpoise (*Phocoenoidea dalli*)—160 (an average of 32 per year).

(C) *Kogia* spp.—30 (an average of 6 per year).

(D) Long-beaked common dolphin (*Delphinus capensis*)—10 (an average of 2 per year).

(E) Northern right whale dolphin (*Lissodelphis borealis*)—5 (an average of 1 per year).

(F) Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—5 (an average of 1 per year).

(G) Pantropical spotted dolphin (*Stenella attenuata*)—10 (an average of 2 per year).

(H) Pygmy sperm whale (*Kogia breviceps*)—5 (an average of 1 per year).

(I) Risso's dolphin (*Grampus griseus*)—5 (an average of 1 per year).

(J) Short-beaked common dolphin (*Delphinus delphis*)—200 (an average of 40 per year).

(K) Spinner dolphin (*Stenella longirostris*)—5 (an average of 1 per year).

(L) Striped dolphin (*Stenella coerulealba*)—5 (an average of 1 per year).

(iii) Pinnipeds:

(A) California sea lion (*Zalophus californianus*)—85 (an average of 17 per year).

(B) Harbor seal (*Phoca vitulina*)—15 (an average of 3 per year).

(C) Northern elephant seal (*Mirounga angustirostris*)—25 (an average of 5 per year).

(D) Northern fur seal (*Callorhinus ursinus*)—15 (an average of 3 per year).

(3) Mortality for all Testing Activities:

(i) No more than 95 mortalities (an average of 19 per year) applicable to any small odontocete or pinniped species from an impulse source.

(ii) No more than 3 large whale mortalities (no more than 2 in any given year) from vessel strike.

§ 218.73 Prohibitions.

Notwithstanding takings contemplated in § 218.72 and authorized by an LOA issued under §§ 216.106 and 218.77 of this chapter, no person in connection with the activities described in § 218.70 may:

(a) Take any marine mammal not specified in § 218.72(c);

(b) Take any marine mammal specified in § 218.72(c) other than by incidental take as specified in § 218.72(c);

(c) Take a marine mammal specified in § 218.72(c) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of these regulations or an LOA issued under §§ 216.106 and 218.77.

§ 218.74 Mitigation.

(a) When conducting training and testing activities, as identified in § 218.70, the mitigation measures contained in the LOA issued under §§ 216.106 and 218.77 of this chapter must be implemented. These mitigation measures include, but are not limited to:

(1) *Lookouts.* The following are protective measures concerning the use of lookouts.

(i) Lookouts positioned on surface ships will be dedicated solely to diligent observation of the air and surface of the water. Their observation objectives will include, but are not limited to, detecting the presence of biological resources and recreational or fishing boats, observing buffer zones, and monitoring for vessel and personnel safety concerns.

(ii) Lookouts positioned in aircraft or on boats will, to the maximum extent practicable and consistent with aircraft and boat safety and training and testing requirements, comply with the observation objectives described above in § 218.74 (a)(1)(i).

(iii) Lookout measures for non-impulsive sound:

(A) With the exception of vessels less than 65 ft (20 m) in length and the Littoral Combat Ship (and similar vessels which are minimally manned), ships using low-frequency or hull-mounted mid-frequency active sonar sources associated with anti-submarine warfare and mine warfare activities at sea will have two lookouts at the forward position of the vessel. For the purposes of this rule, low-frequency active sonar does not include surface towed array surveillance system low-frequency active sonar.

(B) While using low-frequency or hull-mounted mid-frequency active sonar sources associated with anti-submarine warfare and mine warfare activities at sea, vessels less than 65 ft (20 m) in length and the Littoral Combat Ship (and similar vessels which are minimally manned) will have one lookout at the forward position of the vessel due to space and manning restrictions.

(C) Ships conducting active sonar activities while moored or at anchor (including pierside testing or maintenance) will maintain one lookout.

(D) Ships or aircraft conducting non-hull-mounted mid-frequency active sonar, such as helicopter dipping sonar systems, will maintain one lookout.

(E) Surface ships or aircraft conducting high-frequency or non-hull-mounted mid-frequency active sonar activities associated with anti-submarine warfare and mine warfare activities at sea will have one lookout.

(iii) Lookout measures for explosives and impulsive sound:

(A) Aircraft conducting IEER sonobuoy activities will have one lookout.

(B) Surface vessels conducting anti-swimmer grenade activities will have one lookout.

(C) During general mine countermeasure and neutralization activities using up to a 500-lb net explosive weight detonation (bin E10 and below), vessels greater than 200 ft will have two lookouts, while vessels less than 200 ft will have one lookout.

(D) General mine countermeasure and neutralization activities using a 501 to 650-lb net explosive weight detonation (bin E11), will have two lookouts. One lookout will be positioned in an aircraft and one in a support vessel.

(E) Mine neutralization activities involving diver-placed charges using up to a 20-lb net explosive weight detonation will have one lookout.

(F) Mine neutralization activities involving diver-placed charges using a 21 to 100-lb net explosive weight detonation (E8) will have two lookouts. One lookout will be positioned in each of the two support vessels. If aircraft are used, the pilot or member of the aircrew will serve as an additional lookout. The divers placing the charges on mines will report all marine mammal sightings to their dive support vessel.

(G) When mine neutralization activities using diver-placed charges with up to a 20-lb net explosive weight detonation (bin E6) are conducted with a time-delay firing device, four lookouts will be used. Two lookouts will be positioned in each of two small rigid hull inflatable boats. When aircraft are used, the pilot or member of the aircrew will serve as an additional lookout. The divers placing the charges on mines will report all marine mammal sightings to their dive support vessel.

(H) Surface vessels conducting line charge testing will have one lookout.

(I) Surface vessels or aircraft conducting small- and medium-caliber gunnery exercises will have one lookout.

(J) Surface vessels or aircraft conducting large-caliber gunnery exercises will have one lookout.

(K) Surface vessels or aircraft conducting missile exercises against surface targets will have one lookout.

(L) Aircraft conducting bombing exercises will have one lookout.

(M) During explosive torpedo testing, one lookout will be used and positioned in an aircraft.

(N) During sinking exercises, two lookouts will be used. One lookout will be positioned in an aircraft and one on a surface vessel.

(O) Each surface vessel supporting at-sea explosive testing will have at least one lookout.

(P) During pile driving, one lookout will be used and positioned on the platform that will maximize the potential for marine mammal sightings (e.g., the shore, an elevated causeway, or on a ship).

(Q) Surface vessels conducting explosive and non-explosive large-caliber gunnery exercises will have one lookout. This may be the same lookout used during large-caliber gunnery exercises with a surface target.

(iv) Lookout measures for physical strike and disturbance:

(A) While underway, surface ships will have at least one lookout.

(B) During activities using towed in-water devices, one lookout will be used.

(C) Activities involving non-explosive practice munitions (e.g., small-, medium-, and large-caliber gunnery exercises) using a surface target will have one lookout.

(D) During activities involving non-explosive bombing exercises, one lookout will be used.

(2) *Mitigation Zones.* The following are protective measures concerning the implementation of mitigation zones.

(i) Mitigation zones will be measured as the radius from a source and represent a distance to be monitored.

(ii) Visual detections of marine mammals within a mitigation zone will be communicated immediately to a watch station for information dissemination and appropriate action.

(iii) Mitigation zones for non-impulsive sound: [1]

(A) When marine mammals are detected by any means, the Navy shall ensure that low-frequency and hull-mounted mid-frequency active sonar transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals are within 1,000 yd (914 m) of the sonar dome (the bow).

(B) The Navy shall ensure that low-frequency and hull-mounted mid-frequency active sonar transmissions are limited to at least 10 dB below the equipment's normal operating level if any detected marine mammals are within 500 yd (457 m) of the sonar dome.

(C) The Navy shall ensure that low-frequency and hull-mounted mid-frequency active sonar transmissions are ceased if any detected marine mammals are within 200 yd (183 m) of the sonar dome. Transmissions will not resume until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yd beyond the location of the last detection.

(D) When marine mammals are detected by any means, the Navy shall ensure that high-frequency and non-hull-mounted mid-frequency active sonar transmission levels are ceased if

[1] The mitigation zone would be 200 yd for low-frequency non-hull mounted sources in bin LF4.

any detected marine mammals are within 200 yd (183 m) of the source. Transmissions will not resume until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yd beyond the location of the last detection.

(E) Special conditions applicable for dolphins and porpoises only: If, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the Officer of the Deck concludes that dolphins or porpoises are deliberately closing to ride the vessel's bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.

(F) Prior to start up or restart of active sonar, operators shall check that the mitigation zone radius around the sound source is clear of marine mammals.

(G) Generally, the Navy shall operate sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

(iv) Mitigation zones for explosive and impulsive sound:

(A) A mitigation zone with a radius of 600 yd (549 m) shall be established for IEER sonobuoys (bin E4).

(B) A mitigation zone with a radius of 350 yd (320 m) shall be established for explosive sonobuoys using 0.6 to 2.5 lb net explosive weight (bin E3).

(C) A mitigation zone with a radius of 200 yd (183 m) shall be established for anti-swimmer grenades (bin E2).

(D) A mitigation zone ranging from 350 yd (320 m) to 850 yd (777 m), dependent on charge size, shall be established for mine countermeasure and neutralization activities using positive control firing devices. Mitigation zone distances are specified for charge size in Table 11–2 of the Navy's application.

(E) A mitigation zone with a radius of 1,000 yd (915 m) shall be established for mine neutralization diver placed mines using time-delay firing devices (bin E6).

(F) A mitigation zone with a radius of 900 yd (823 m) shall be established for ordnance testing (line charge testing) (bin E4).

(G) A mitigation zone with a radius of 200 yd (183 m) shall be established for small- and medium-caliber gunnery exercises with a surface target (bin E2).

(H) A mitigation zone with a radius of 600 yd (549 m) shall be established for large-caliber gunnery exercises with a surface target (bin E5).

(I) A mitigation zone with a radius of 900 yd (823 m) shall be established for missile exercises with up to 250 lb net explosive weight and a surface target (bin E9).

(J) A mitigation zone with a radius of 2,000 yd (1.8 km) shall be established for missile exercises with 251 to 500 lb net explosive weight and a surface target (E10).

(K) A mitigation zone with a radius of 2,500 yd (2.3 km) shall be established for bombing exercises (bin E12).

(L) A mitigation zone with a radius of 2,100 yd (1.9 km) shall be established for torpedo (explosive) testing (bin E11).

(M) A mitigation zone with a radius of 2.5 nautical miles shall be established for sinking exercises (bin E12).

(N) A mitigation zone with a radius of 1,600 yd (1.4 km) shall be established for at-sea explosive testing (bin E5).

(O) A mitigation zone with a radius of 60 yd (55 m) shall be established for elevated causeway system pile driving.

(v) Mitigation zones for vessels and in-water devices:

(A) A mitigation zone of 500 yd (457 m) for observed whales and 200 yd (183 m) for all other marine mammals (except bow riding dolphins) shall be established for all vessel movement, providing it is safe to do so.

(B) A mitigation zone of 250 yd (229 m) shall be established for all towed in-water devices, providing it is safe to do so.

(vi) Mitigation zones for non-explosive practice munitions:

(A) A mitigation zone of 200 yd (183 m) shall be established for small, medium, and large caliber gunnery exercises using a surface target.

(B) A mitigation zone of 1,000 yd (914 m) shall be established for bombing exercises.

(vii) Mitigation zones for the use of Navy sea lions:

(A) If a monk seal is seen approaching or within 100 m of a Navy sea lion, the handler will hold the Navy sea lion in the boat or recall the Navy sea lion immediately if it has already been released.

(3) Humpback Whale Cautionary Area

(i) The Navy will maintain a 5-km (3.1-mi) buffer zone between December 15 and April 15 where conducting exercises will require authorization by the Commander, U.S. Pacific Fleet (CPF).

(ii) If authorized, the CPF will provide specific direction on required mitigation prior to operational units transiting to and training in the area.

(iii) The Navy will provide NMFS with advance notification of any mid-frequency active sonar training and testing activities in the humpback whale cautionary area.

(4) Stranding Response Plan

(i) The Navy shall abide by the letter of the ''Stranding Response Plan for Major Navy Training Exercises in the HSTT Study Area,'' to include the following measures:

(A) Shutdown Procedures—When an Uncommon Stranding Event (USE—defined in § 218.71(b)(1)) occurs during a Major Training Exercise (MTE) in the HSTT Study Area, the Navy shall implement the procedures described below.

(*1*) The Navy shall implement a shutdown (as defined § 218.71(b)(2)) when advised by a NMFS Office of Protected Resources Headquarters Senior Official designated in the HSTT Study Area Stranding Communication Protocol that a USE involving live animals has been identified and that at least one live animal is located in the water. NMFS and the Navy will maintain a dialogue, as needed, regarding the identification of the USE and the potential need to implement shutdown procedures.

(*2*) Any shutdown in a given area shall remain in effect in that area until NMFS advises the Navy that the subject(s) of the USE at that area die or are euthanized, or that all live animals involved in the USE at that area have left the area (either of their own volition or herded).

(*3*) If the Navy finds an injured or dead animal floating at sea during an MTE, the Navy shall notify NMFS immediately or as soon as operational security considerations allow. The Navy shall provide NMFS with species or description of the animal(s), the condition of the animal(s), including carcass condition if the animal(s) is/are dead, location, time of first discovery, observed behavior (if alive), and photo or video (if available). Based on the information provided, NFMS will determine if, and advise the Navy whether a modified shutdown is appropriate on a case-by-case basis.

(*4*) In the event, following a USE, that qualified individuals are attempting to herd animals back out to the open ocean and animals are not willing to leave, or animals are seen repeatedly heading for the open ocean but turning back to shore, NMFS and the Navy shall coordinate (including an investigation of other potential anthropogenic stressors in the area) to determine if the proximity of mid-frequency active sonar training activities or explosive detonations, though farther than 14 nautical miles from the distressed animal(s), is likely contributing to the animals' refusal to return to the open water. If so, NMFS and the Navy will further coordinate to determine what measures are necessary to improve the probability that the animals will return

to open water and implement those measures as appropriate.

(B) Within 72 hours of NMFS notifying the Navy of the presence of a USE, the Navy shall provide available information to NMFS (per the HSTT Study Area Communication Protocol) regarding the location, number and types of acoustic/explosive sources, direction and speed of units using mid-frequency active sonar, and marine mammal sightings information associated with training activities occurring within 80 nautical miles (148 km) and 72 hours prior to the USE event. Information not initially available regarding the 80-nautical miles (148-km), 72-hour period prior to the event will be provided as soon as it becomes available. The Navy will provide NMFS investigative teams with additional relevant unclassified information as requested, if available.

(b) [Reserved]

§ 218.75 Requirements for monitoring and reporting.

(a) As outlined in the HSTT Study Area Stranding Communication Plan, the Holder of the Authorization must notify NMFS immediately (or as soon as operational security considerations allow) if the specified activity identified in § 218.70 is thought to have resulted in the mortality or injury of any marine mammals, or in any take of marine mammals not identified in § 218.71.

(b) The Holder of the LOA must conduct all monitoring and required reporting under the LOA, including abiding by the HSTT Monitoring Plan.

(c) General Notification of Injured or Dead Marine Mammals—Navy personnel shall ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as operational security considerations allow) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, a Navy training or testing activity utilizing mid- or high-frequency active sonar, or underwater explosive detonations. The Navy shall provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). The Navy shall consult the Stranding Response Plan to obtain more specific reporting requirements for specific circumstances.

(d) Annual HSTT Monitoring Plan Report—The Navy shall submit an annual report describing the implementation and results (through November of the same year) of the HSTT Monitoring Plan, described in § 218.75. Data collection methods will be standardized across range complexes and study areas to allow for comparison in different geographic locations. Although additional information will be gathered, the protected species observers collecting marine mammal data pursuant to the HSTT Monitoring Plan shall, at a minimum, provide the same marine mammal observation data required in § 218.75. The HSTT Monitoring Plan may be provided to NMFS within a larger report that includes the required Monitoring Plan reports from multiple range complexes and study areas.

(e) Annual HSTT Exercise Report—The Navy shall submit an annual HSTT Exercise Report. This report shall contain information identified in subsections § 218.75 (e)(1–5).

(1) MFAS/HFAS Major Training Exercises—This section shall contain the following information for Major Training Exercises (MTEs, which include RIMPAC, USWEX, and Multi Strike Group) conducted in the HRC:

(i) Exercise Information (for each MTE):

(A) Exercise designator.

(B) Date that exercise began and ended.

(C) Location.

(D) Number and types of active sources used in the exercise.

(E) Number and types of passive acoustic sources used in exercise.

(F) Number and types of vessels, aircraft, etc., participating in exercise.

(G) Total hours of observation by watchstanders.

(H) Total hours of all active sonar source operation.

(I) Total hours of each active sonar source bin.

(J) Wave height (high, low, and average during exercise).

(ii) Individual marine mammal sighting info (for each sighting in each MTE).

(A) Location of sighting.

(B) Species (if not possible, indication of whale/dolphin/pinniped).

(C) Number of individuals.

(D) Calves observed (y/n).

(E) Initial Detection Sensor.

(F) Indication of specific type of platform observation made from (including, for example, what type of surface vessel, i.e., FFG, DDG, or CG).

(G) Length of time observers maintained visual contact with marine mammal.

(H) Wave height (in feet).

(I) Visibility.

(J) Sonar source in use (y/n).

(K) Indication of whether animal is <200 yd, 200 to 500 yd, 500 to 1,000 yd, 1,000 to 2,000 yd, or >2,000 yd from sonar source in paragraph (f)(1)(ii)(J) of this section.

(L) Mitigation Implementation—Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was.

(M) If source in use (see paragraph (f)(1)(ii)(J) of this section) is hull-mounted, true bearing of animal from ship, true direction of ship's travel, and estimation of animal's motion relative to ship (opening, closing, parallel).

(N) *Observed behavior.* Watchstanders shall report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming, etc.).

(iii) An evaluation (based on data gathered during all of the MTEs) of the effectiveness of mitigation measures designed to avoid exposing animals to mid-frequency active sonar. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

(2) *ASW Summary.* This section shall include the following information as summarized from both MTEs and non-major training exercises (i.e., unit-level exercises, such as TRACKEXs):

(i) Total annual hours of each sonar source bin.

(ii) Total hours (from December 15 through April 15) of hull-mounted active sonar operation occurring in the dense humpback areas plus a 5-km buffer, but not including the Pacific Missile Range Facility.

(iii) Total estimated annual hours of hull-mounted active sonar operation conducted in the Humpback Whale Cautionary area between December 15 and April 15.

(iv) *Cumulative Impact Report.* To the extent practicable, the Navy, in coordination with NMFS, shall develop and implement a method of annually reporting non-major (i.e., other than RIMPAC, USWEX, or Multi-Strike Group Exercises) training exercises utilizing hull-mounted sonar. The report shall present an annual (and seasonal, where practicable) depiction of non-major training exercises geographically across the HSTT Study Area. The Navy shall include (in the HSTT annual report) a brief annual progress update on the status of development until an agreed-upon (with NMFS) method has been developed and implemented.

(3) *SINKEXs.* This section shall include the following information for each SINKEX completed that year:

(i) Exercise information (gathered for each SINKEX):

(A) Location.

(B) Date and time exercise began and ended.

(C) Total hours of observation by lookouts before, during, and after exercise.

(D) Total number and types of explosive source bins detonated.

(E) Number and types of passive acoustic sources used in exercise.

(F) Total hours of passive acoustic search time.

(G) Number and types of vessels, aircraft, etc., participating in exercise.

(H) Wave height in feet (high, low, and average during exercise).

(I) Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted.

(ii) Individual marine mammal observation (by Navy lookouts) information (gathered for each marine mammal sighting):

(A) Location of sighting.

(B) Species (if not possible, indicate whale, dolphin, or pinniped).

(C) Number of individuals.

(D) Whether calves were observed.

(E) Initial detection sensor.

(F) Length of time observers maintained visual contact with marine mammal.

(G) Wave height.

(H) Visibility.

(I) Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after.

(J) Distance of marine mammal from actual detonations (or target spot if not yet detonated).

(K) Observed behavior—Lookouts will report, in plain language and without trying to categorize in any way, the observed behavior of the animal(s) (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming etc.), including speed and direction.

(L) Resulting mitigation implementation—Indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long.

(M) If observation occurs while explosives are detonating in the water, indicate munition type in use at time of marine mammal detection.

(4) *IEER Summary.* This section shall include an annual summary of the following IEER information:

(i) Total number of IEER events conducted in the HSTT Study Area.

(ii) Total expended/detonated rounds (buoys).

(iii) Total number of self-scuttled IEER rounds.

(5) Explosives Summary—To the extent practicable, the Navy will provide the information described below for all of their explosive exercises. Until the Navy is able to report in full the information below, they will provide an annual update on the Navy's explosive tracking methods, including improvements from the previous year.

(i) Total annual number of each type of explosive exercises (of those identified as part of the ''specified activity'' in this final rule) conducted in the HSTT Study Area.

(ii) Total annual expended/detonated rounds (missiles, bombs, etc.) for each explosive source bin.

(g) Sonar Exercise Notification—The Navy shall submit to the NMFS Office of Protected Resources (specific contact information to be provided in LOA) either an electronic (preferably) or verbal report within fifteen calendar days after the completion of any major exercise (RIMPAC, USWEX, or Multi Strike Group) indicating:

(1) Location of the exercise.

(2) Beginning and end dates of the exercise.

(3) Type of exercise (e.g., RIMPAC, USWEX, or Multi Strike Group).

(h) *HSTT Study Area 5-yr Comprehensive Report.* The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and explosive exercises for which annual reports are required (Annual HSTT Exercise Reports and HSTT Monitoring Plan reports). This report will be submitted at the end of the fourth year of the rule (November 2018), covering activities that have occurred through June 1, 2018.

(i) *Comprehensive National ASW Report.* By June 2019, the Navy shall submit a draft Comprehensive National Report that analyzes, compares, and summarizes the active sonar data gathered (through January 1, 2019) from the lookouts in accordance with the Monitoring Plans for HSTT, AFTT, MITT, and NWTT.

(j) The Navy shall respond to NMFS' comments and requests for additional information or clarification on the HSTT Comprehensive Report, the draft National ASW report, the Annual HSTT Exercise Report, or the Annual HSTT Monitoring Plan report (or the multi-Range Complex Annual Monitoring Plan Report, if that is how the Navy chooses to submit the information) if submitted within 3 months of receipt. These reports will be considered final after the Navy has addressed NMFS' comments or provided the requested information, or three months after the submittal of the draft if NMFS does not comment by then.

§ 218.76 Applications for Letters of Authorization.

To incidentally take marine mammals pursuant to the regulations in this subpart, the U.S. citizen (as defined by § 216.106) conducting the activity identified in § 218.70(c) (the U.S. Navy) must apply for and obtain either an initial LOA in accordance with § 218.77 or a renewal under § 218.78.

§ 218.77 Letters of Authorization.

(a) An LOA, unless suspended or revoked, will be valid for a period of time not to exceed the period of validity of this subpart.

(b) Each LOA will set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (i.e., mitigation); and

(3) Requirements for mitigation, monitoring and reporting.

(c) Issuance and renewal of the LOA will be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s).

§ 218.78 Renewal of Letters of Authorization and Adaptive Management.

(a) A Letter of Authorization issued under §§ 216.106 and 218.77 for the activity identified in § 218.70(c) will be renewed based upon:

(1) Notification to NMFS that the activity described in the application submitted under § 218.78 will be undertaken and that there will not be a substantial modification to the described work, mitigation, or monitoring undertaken during the upcoming period of validity;

(2) Timely receipt (by the dates indicated in these regulations) of the monitoring reports required under § 218.75(c–j); and

(3) A determination by the NMFS that the mitigation, monitoring, and reporting measures required under § 218.74 and the LOA issued under §§ 216.106 and 218.78, were undertaken and will be undertaken during the upcoming period of validity of a renewed Letter of Authorization.

(b) If a request for a renewal of an LOA issued under this § 216.106 and § 218.78 indicates that a substantial modification, as determined by NMFS, to the described work, mitigation or monitoring undertaken during the upcoming season will occur, NMFS will provide the public a period of 30 days for review and comment on the request.

Review and comment on renewals of LOAs are restricted to:

(1) New cited information and data indicating that the determinations made in this document are in need of reconsideration; and

(2) Proposed changes to the mitigation and monitoring requirements contained in these regulations or in the current LOA.

(c) A notice of issuance or denial of an LOA renewal will be published in the **Federal Register**.

(d) NMFS, in response to new information and in consultation with the Navy, may modify the mitigation or monitoring measures in subsequent LOAs if doing so creates a reasonable likelihood of more effectively accomplishing the goals of mitigation and monitoring. Below are some of the possible sources of new data that could contribute to the decision to modify the mitigation or monitoring measures:

(1) Results from the Navy's monitoring from the previous year (either from the HSTT Study Area or other locations).

(2) Compiled results of Navy-funded research and development (R&D) studies (presented pursuant to the ICMP (§ 218.75(d)).

(3) Results from specific stranding investigations (either from the HSTT Study Area or other locations, and involving coincident mid- or high-frequency active sonar or explosives training or not involving coincident use).

(4) Results from the Long Term Prospective Study.

(5) Results from general marine mammal and sound research (funded by the Navy (or otherwise)).

§ 216.79 Modifications to Letters of Authorization.

(a) Except as provided in paragraph (b) of this section, no substantive modification (including withdrawal or suspension) to the LOA by NMFS, issued pursuant to §§ 216.106 and 218.77 of this chapter and subject to the provisions of this subpart shall be made until after notification and an opportunity for public comment has been provided. For purposes of this paragraph, a renewal of an LOA under § 218.78, without modification (except for the period of validity), is not considered a substantive modification.

(b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 218.72(c), an LOA issued pursuant to §§ 216.106 and 218.77 of this chapter may be substantively modified without prior notification and an opportunity for public comment. Notification will be published in the **Federal Register** within 30 days subsequent to the action.

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Part IV

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Part 218

Takes of Marine Mammals Incidental to Specified Activities; U.S. Navy Training and Testing Activities in the Atlantic Fleet Training and Testing Study Area; Proposed Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 218

[Docket No. 130109022–3022–01]

RIN 0648–BC53

Takes of Marine Mammals Incidental to Specified Activities; U.S. Navy Training and Testing Activities in the Atlantic Fleet Training and Testing Study Area

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of proposed rulemaking; request for comments and information.

SUMMARY: NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to the training and testing activities conducted in the Atlantic Fleet Training and Testing (AFTT) study area from January 2014 through January 2019. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue regulations and subsequent Letters of Authorization (LOAs) to the Navy to incidentally harass marine mammals.

DATES: Comments and information must be received no later than March 11, 2013.

ADDRESSES: You may submit comments, identified by 0648–BC53, by either of the following methods:

- Electronic submissions: submit all electronic public comments via the Federal eRulemaking Portal *http://www.regulations.gov*
- Hand delivery of mailing of paper, disk, or CD–ROM comments should be addressed to P. Michael Payne, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225.

Instructions: All comments received are a part of the public record and will generally be posted to *http://www.regulations.gov* without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Work, Excel, WordPerfect, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Brian D. Hopper, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Availability

A copy of the Navy's application may be obtained by visiting the internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm*. The Navy's Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) for AFTT was made available to the public on May 11, 2012 (77 FR 27742). Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned address.

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring, and reporting of such takings are set forth. NMFS has defined ''negligible impact'' in 50 CFR 216.103 as ''* * * an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.''

The National Defense Authorization Act of 2004 (NDAA) (Pub. L. 108–136) removed the ''small numbers'' and ''specified geographic region'' limitations indicated above and amended the definition of ''harassment'' as applied to ''military readiness activity'' to read as follows (Section 3(18)(B) of the MMPA: ''(i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].''

Summary of Request

On April 13, 2012, NMFS received an application from the Navy requesting regulations and two LOAs for the take of 42 species of marine mammals incidental to Navy training and testing activities to be conducted in the AFTT Study Area over 5 years. The Navy submitted addendums on September 24, 2012 and December 21, 2012, and the application was considered complete. This proposed rule is based on the information contained in the revised LOA applications. The Navy is requesting regulations that would establish a process for authorizing take, via two separate 5-year LOAs, of marine mammals for training activities and for testing activities, each proposed to be conducted from 2014 through 2019. The Study Area includes several existing study areas, range complexes, and testing ranges (Atlantic Fleet Active Sonar Training (AFAST), Northeast, Virginia Capes (VACAPES), Cherry Point (CHPT), Jacksonville (JAX), Gulf of Mexico (GOMEX), Naval Surface Warfare Center, Panama City, Naval Undersea Warfare Center Newport, South Florida Ocean Measurement Facility (SFOMF), and Key West) plus pierside locations and areas on the high seas where maintenance, training, or testing may occur. The proposed activities are classified as military readiness activities. Marine mammals present in the Study Area may be exposed to sound from active sonar, underwater detonations, and/or pile driving and removal. In addition, incidental takes of marine mammals may occur from ship strikes. The Navy requests authorization to take individuals of 42 marine mammal species by Level B harassment and individuals of 32 marine mammal species by Level A harassment. In addition, the Navy requests authorization for take by serious injury or mortality individuals of 16 marine mammal species due to the use of explosives, and 11 total marine mammals (any species except North Atlantic right whale) over the course of the 5-year rule due to vessel strike.

The Navy's application and the AFTT DEIS/OEIS contain proposed acoustic criteria and thresholds that would, in some instances, represent changes from what NMFS has used to evaluate the

Navy's proposed activities for past incidental take authorizations. The revised thresholds are based on evaluations of recent scientific studies; a detailed explanation of how they were derived is provided in the AFTT DEIS/OEIS Criteria and Thresholds Technical Report. NMFS is currently updating and revising all of its acoustic criteria and thresholds. Until that process is complete, NMFS will continue its long-standing practice of considering specific modifications to the acoustic criteria and thresholds currently employed for incidental take authorizations only after providing the public with an opportunity for review and comment. NMFS is requesting comments on all aspects of the proposed rule, and specifically requests comment on the proposed acoustic criteria and thresholds.

Background of Request

The Navy's mission is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. Section 5062 of Title 10 of the United States Code directs the Chief of Naval Operations to train all military forces for combat. The Chief of Naval Operations meets that directive, in part, by conducting at-sea training exercises and ensuring naval forces have access to ranges, operating areas (OPAREAs) and airspace where they can develop and maintain skills for wartime missions and conduct research, development, testing, and evaluation (RDT&E) of naval systems.

The Navy proposes to continue conducting training and testing activities within the AFTT Study Area, which have been ongoing since the 1940s. Recently, most of these activities were analyzed in six separate EISs completed between 2009 and 2011; the Atlantic Fleet Active Sonar Training (AFAST) EIS/OEIS (U.S. Department of the Navy, 2009a), the Virginia Capes Range Complex (VACAPES) EIS/OEIS (U.S. Department of the Navy, 2009b), the Navy Cherry Point Range Complex (CHPT) EIS/OEIS (U.S. Department of the Navy, 2009c), the Jacksonville Range Complex (JAX) EIS/OEIS (U.S. Department of the Navy, 2009d), the Panama City (PCD) EIS/OEIS (U.S. Department of the Navy, 2009e), and the Gulf of Mexico (GOMEX) EIS/OEIS (U.S. Department of the Navy, 2011). These documents, among others, and their associated MMPA regulations and authorizations, describe the baseline of training and testing activities currently conducted in the Study Area. The tempo and types of training and testing activities have fluctuated due to changing requirements; new technologies; the dynamic nature of international events; advances in warfighting doctrine and procedures; and changes in basing locations for ships, aircraft, and personnel. Such developments influence the frequency, duration, intensity, and location of required training and testing. The Navy's request covers training and testing activities that would occur for a 5-year period following the expiration of the current MMPA authorizations for AFAST, VACAPES, CHPT, JAX, and GOMEX. The Navy has also prepared a DEIS/OEIS analyzing the effects on the human environment of implementing their preferred alternative (among others).

The quantified results of the marine mammal acoustic effects analysis presented in the Navy's LOA application differ from the quantified results presented in the AFTT DEIS/OEIS. The differences are due to three main factors: (1) Changes to tempo or location of certain training and testing activities; (2) refinement to the modeling inputs for training and testing; and (3) additional post-model analysis of acoustic effects to include animal avoidance of repeated sound sources, avoidance of areas of activity before use of a sound source or explosive by sensitive species, and implementation of mitigation. The additional post-model analysis of acoustic effects was performed to clarify potential misunderstandings of the numbers presented as modeling results in the AFTT DEIS/OEIS. Some comments indicated that the readers believed the acoustic effects to marine mammals presented in the DEIS/OEIS were representative of the actual expected effects, although the AFTT DEIS/OEIS did not account for animal avoidance of an area prior to commencing sound-producing activities, animal avoidance of repeated explosive noise exposures, and the protections due to standard Navy mitigations. The net result of these changes is an overall decrease in takes in the Mortality and Level A takes within the LOA application compared with the DEIS, a net reduction in Level B takes for training, and a net increase in Level B takes for testing. The Navy has advised NMFS that all comments received on the proposed rule that address: (1) Changes to the tempo or location of certain proposed activities; (2) refinement to the modeling inputs for training and testing; and (3) additional post-model analysis of acoustic effects and implementation of mitigation, will be reviewed and addressed by the Navy in its FEIS/OEIS for AFTT.

Description of the Specified Activity

The Navy requests authorization to take marine mammals incidental to conducting training and testing activities. The Navy has determined that non-impulsive sources (e.g. sonar), underwater detonations, pile driving and removal, and vessel strikes are the stressors most likely to result in impacts on marine mammals that could rise to the level of harassment. Detailed descriptions of these activities are provided in the Navy's Draft Environmental Impact Statement (DEIS) and LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm*) and summarized here.

Overview of Training Activities

The Navy routinely trains in the AFTT Study Area in preparation for national defense missions. Training activities are categorized into eight functional warfare areas (anti-air warfare; amphibious warfare; strike warfare; anti-surface warfare; anti-submarine warfare; electronic warfare; mine warfare; and naval special warfare). The Navy determined that stressors used in the following warfare areas are most likely to result in impacts on marine mammals:

- Amphibious warfare (underwater detonations, pile driving and removal)
- Anti-surface warfare (underwater detonations)
- Anti-submarine warfare (active sonar, underwater detonations)
- Mine warfare (active sonar, underwater detonations)
- Naval special warfare (underwater detonations)

The Navy's activities in anti-air warfare, strike warfare, and electronic warfare do not produce stressors that could result in harassment of marine mammals. Therefore, these activities are not discussed further.

Amphibious Warfare

The mission of amphibious warfare is to project military power from the sea to the shore through the use of naval firepower and Marine Corps landing forces. The Navy uses amphibious warfare to attack a threat located on land by a military force embarked on ships. Amphibious warfare training ranges from individual, crew, and small unit events to large task force exercises. Individual and crew training include amphibious vehicles and naval gunfire support training for shore assaults, boat raids, airfield or port seizures, and reconnaissance. Large-scale amphibious exercises involve ship-to-shore

maneuver, naval fire support, such as shore bombardment, and air strike and close air support training. However, the Navy only analyzed those portions of amphibious warfare training that occur at sea, in particular, underwater detonations associated with naval gunfire support training. The Navy conducts other amphibious warfare support activities that could potentially impact marine mammals (such as pile driving and removal) in the near shore region from the beach to about 914 m from shore.

Anti-Surface Warfare

The mission of anti-surface warfare is to defend against enemy ships or boats. When conducting anti-surface warfare, aircraft use cannons, air-launched cruise missiles, or other precision munitions (guided and unguided); ships use naval guns, and surface-to-surface missiles; and submarines use torpedoes or submarine-launched, anti-ship cruise missiles. Anti-surface warfare training includes surface-to-surface gunnery and missile exercises, air-to-surface gunnery and missile exercises, and submarine missile or exercise torpedo launch events.

Anti-Submarine Warfare

The mission of anti-submarine warfare is to locate, neutralize, and defeat hostile submarine threats to surface forces. Anti-submarine warfare is based on the principle of a layered defense of surveillance and attack aircraft, ships, and submarines all searching for hostile submarines. These forces operate together or independently to gain early warning and detection, and to localize, track, target, and attack hostile submarine threats. Anti-submarine warfare training addresses basic skills such as detection and classification of submarines, distinguishing between sounds made by enemy submarines and those of friendly submarines, ships, and marine life. More advanced, integrated anti-submarine warfare training exercises are conducted in coordinated, at-sea training events involving submarines, ships, and aircraft. This training integrates the full spectrum of anti-submarine warfare from detecting and tracking a submarine to attacking a target using either exercise torpedoes or simulated weapons.

Mine Warfare

The mission of mine warfare is to detect, and avoid or neutralize mines to protect Navy ships and submarines and to maintain free access to ports and shipping lanes. Mine warfare also includes offensive mine laying to gain control or deny the enemy access to sea space. Naval mines can be laid by ships, submarines, or aircraft. Mine warfare training includes exercises in which ships, aircraft, submarines, underwater vehicles, or marine mammal detection systems search for mines. Certain personnel train to destroy or disable mines by attaching and detonating underwater explosives to simulated mines. Other neutralization techniques involve impacting the mine with a bullet-like projectile or intentionally triggering the mine to detonate.

Naval Special Warfare

The mission of naval special warfare is to conduct unconventional warfare, direct action, combat terrorism, special reconnaissance, information warfare, security assistance, counter-drug operations, and recovery of personnel from hostile situations. Naval special warfare operations are highly specialized and require continual and intense training. Naval special warfare units are required to utilize a combination of specialized training, equipment, and tactics, including insertion and extraction operations using parachutes, submerged vehicles, rubber boats, and helicopters; boat-to-shore and boat-to-boat gunnery; underwater demolition training; reconnaissance; and small arms training.

Overview of Testing Activities

The Navy researches, develops, tests, and evaluates new platforms, systems, and technologies. Testing activities may occur independently of or in conjunction with training activities. Many testing activities are conducted similarly to Navy training activities and are also categorized under one of the primary mission areas. Other testing activities are unique and are described within their specific testing categories. The Navy determined that stressors used during the following testing activities are most likely to result in impacts on marine mammals:

- Naval Air Systems Command (NAVAIR) Testing
- Anti-surface warfare testing (underwater detonations)
- Anti-submarine warfare testing (active sonar, underwater detonations)
- Mine warfare testing (active sonar, underwater detonations)
- Naval Sea Systems Command (NAVSEA) Testing
- New ship construction (active sonar, underwater detonations)
- Shock trials (underwater detonations)
- Life cycle activities (active sonar, underwater detonations)
- Range Activities (active sonar, underwater detonations)
- Anti-surface warfare/anti-submarine warfare testing (active sonar, underwater detonations)
- Mine warfare testing (active sonar, underwater detonations)
- Ship protection systems and swimmer defense testing (active sonar, airguns)
- Unmanned vehicle testing (active sonar)
- Other testing (active sonar)
- Office of Naval Research (ONR) and Naval Research Laboratory (NRL) Testing
- ONR/NRL Research, Development, Test & Evaluation (active sonar)

Other Navy testing activities that do not involve underwater non-impulse sources or impulse sources that could result in marine mammal harassment are not discussed further.

Naval Air Systems Command Testing (NAVAIR)

NAVAIR events include testing of new aircraft platforms, weapons, and systems before delivery to the fleet for training activities. NAVAIR also conducts lot acceptance testing of weapons and systems, such as sonobuoys. In general, NAVAIR conducts its testing activities the same way the fleet conducts its training activities. However, NAVAIR testing activities may occur in different locations than equivalent fleet training activities and testing of a particular system may differ slightly from the way the fleet trains with the same system.

Anti-Surface Warfare Testing

Anti-surface warfare testing includes air-to-surface gunnery, missile, and rocket exercises. Testing is required to ensure the equipment is fully functional for defense from surface threats. Testing may be conducted on new guns or gun rounds, missiles, rockets, and aircraft, and also in support of scientific research to assess new and emerging technologies. Testing events are often integrated into training activities and in most cases the systems are used in the same manner in which they are used for fleet training activities.

Anti-Submarine Warfare Testing

Anti-submarine warfare testing addresses basic skills such as detection and classification of submarines, distinguishing between sounds made by enemy submarines and those of friendly submarines, ships, and marine life. More advanced, integrated anti-submarine warfare testing is conducted in coordinated, at-sea training events involving submarines, ships, and

aircraft. This testing integrates the full spectrum of anti-submarine warfare from detecting and tracking a submarine to attacking a target using various torpedoes and weapons.

Mine Warfare Testing

Mine warfare testing includes activities in which aircraft detection systems are used to search for and record the location of mines for subsequent neutralization. Mine neutralization tests evaluate a system's effectiveness at intentionally detonating or otherwise disabling the mine. Different mine neutralization systems are designed to neutralize mines either at the sea surface or deployed deeper within the water column. All components of these systems are tested in the at-sea environment to ensure they meet mission requirements.

Naval Sea Systems Command Testing (NAVSEA)

NAVSEA testing activities are aligned with its mission of new ship construction, shock trials, life cycle activities, range activities, and other weapon systems development and testing.

New Ship Construction Activities

Ship construction activities include pierside testing of ship systems, tests to determine how the ship performs at-sea (sea trials), and developmental and operational test and evaluation programs for new technologies and systems. Pierside and at-sea testing of systems aboard a ship may include sonar, acoustic countermeasures, radars, and radio equipment. During sea trials, each new ship propulsion engine is operated at full power and subjected to high-speed runs and steering tests. At-sea test firing of shipboard weapon systems, including guns, torpedoes, and missiles, are also conducted.

Shock Trials

One ship of each new class (or major upgrade) of combat surface ships constructed for the Navy may undergo an at-sea shock trial. A shock trial is a series of underwater detonations that send a shock wave through the ship's hull to simulate near misses during combat. A shock trial allows the Navy to validate the shock hardness of the ship and assess the survivability of the hull and ship's systems in a combat environment as well as the capability of the ship to protect the crew.

Life Cycle Activities

Testing activities are conducted throughout the life of a Navy ship to verify performance and mission capabilities. Sonar system testing occurs pierside during maintenance, repair, and overhaul availabilities, and at sea immediately following most major overhaul periods. A Combat System Ship Qualification Trial is conducted for new ships and for ships that have undergone modification or overhaul of their combat systems.

Radar cross signature testing of surface ships is conducted on new vessels and periodically throughout a ship's life to measure how detectable the ship is by radar. Electromagnetic measurements of off-board electromagnetic signatures are also conducted for submarines, ships, and surface craft periodically.

Range Activities

NAVSEA's testing ranges are used to conduct principal testing, analysis, and assessment activities for ship and submarine platforms, including ordnance, mines, and machinery technology for surface combat systems. Naval Surface Warfare Center, Panama City Division Testing Range focuses on surface warfare tests that often involve mine countermeasures. Naval Undersea Warfare Center Division, Newport Testing Range focuses on the undersea aspects of warfare and is, therefore, structured to test systems such as torpedoes and unmanned underwater vehicles. The South Florida Ocean Measurement Facility Testing Range retains a unique capability that focuses on signature analysis operations and mine warfare testing events.

Other Weapon Systems Development and Testing

Numerous test activities and technical evaluations, in support of NAVSEA's systems development mission, often occur with fleet activities within the Study Area. Tests within this category include, but are not limited to, anti-surface, anti-submarine, and mine warfare, using torpedoes, sonobuoys, and mine detection and neutralization systems.

Office of Naval Research (ONR) and Naval Research Laboratory (NLR) Testing

As the Navy's Science and Technology provider, ONR and NRL provide technology solutions for Navy and Marine Corps needs. ONR's mission, defined by law, is to plan, foster, and encourage scientific research in recognition of its paramount importance as related to the maintenance of future naval power, and the preservation of national security. Further, ONR manages the Navy's basic, applied, and advanced research to foster transition from science and technology to higher levels of research, development, test and evaluation. The Ocean Battlespace Sensing Department explores science and technology in the areas of oceanographic and meteorological observations, modeling, and prediction in the battlespace environment; submarine detection and classification (anti-submarine warfare); and mine warfare applications for detecting and neutralizing mines in both the ocean and littoral environments. ONR events include: Research, development, test and evaluation activities; surface processes acoustic communications experiments; shallow water acoustic propagation experiments; and long range acoustic propagation experiments.

Sonar, Ordnance, Targets, and Other Systems

The Navy uses a variety of sensors, platforms, weapons, and other devices to meet its mission. Training and testing with these systems may introduce acoustic (sound) energy into the environment. This section describes and organizes sonar systems, ordnance, munitions, targets, and other systems to facilitate understanding of the activities in which these systems are used. Underwater sound is described as one of two types for the purposes of the Navy's application: Impulsive and non-impulsive. Underwater detonations of explosives and other percussive events are impulsive sounds. Sonar and similar sound producing systems are categorized as non-impulsive sound sources.

Sonar and Other Non-Impulsive Sources

Modern sonar technology includes a variety of sonar sensor and processing systems. The simplest active sonar emits sound waves, or ''pings,'' sent out in multiple directions and the sound waves then reflect off of the target object in multiple directions. The sonar source calculates the time it takes for the reflected sound waves to return; this calculation determines the distance to the target object. More sophisticated active sonar systems emit a ping and then rapidly scan or listen to the sound waves in a specific area. This provides both distance to the target and directional information. Even more advanced sonar systems use multiple receivers to listen to echoes from several directions simultaneously and provide efficient detection of both direction and distance. The Navy rarely uses active sonar continuously throughout activities. When sonar is in use, the pings occur at intervals, referred to as a duty cycle, and the signals themselves

are very short in duration. For example, sonar that emits a 1-second ping every 10 seconds has a 10 percent duty cycle. The Navy utilizes sonar systems and other acoustic sensors in support of a variety of mission requirements. Primary uses include the detection of, and defense against, submarines (anti-submarine warfare) and mines (mine warfare); safe navigation and effective communications; use of unmanned undersea vehicles; and oceanographic surveys.

Ordnance and Munitions

Most ordnance and munitions used during training and testing events fall into three basic categories: projectiles (such as gun rounds), missiles (including rockets), and bombs. Ordnance can be further defined by their net explosive weight, which considers the type and quantity of the explosive substance without the packaging, casings, bullets, etc. Net explosive weight (NEW) is the trinitrotoluene (TNT) equivalent of energetic material, which is the standard measure of strength of bombs and other explosives. For example, a 5-inch shell fired from a Navy gun is analyzed at about 9.5 pounds (lb) (4.3 kg) of NEW. The Navy also uses non-explosive ordnance in place of high explosive ordnance in many training and testing events. Non-explosive ordnance munitions look and perform similarly to high explosive ordnance, but lack the main explosive charge.

Defense Countermeasures

Naval forces depend on effective defensive countermeasures to protect themselves against missile and torpedo attack. Defensive countermeasures are devices designed to confuse, distract, and confound precision guided munitions. Defensive countermeasures analyzed in this LOA application include acoustic countermeasures, which are used by surface ships and submarines to defend against torpedo attack. Acoustic countermeasures are either released from ships and submarines, or towed at a distance behind the ship.

Mine Warfare Systems

The Navy divides mine warfare systems into two categories: Mine detection and mine neutralization. Mine detection systems are used to locate, classify, and map suspected mines, on the surface, in the water column, or on the sea floor. The Navy analyzed the following mine detection systems for potential impacts on marine mammals:

- Towed or hull-mounted mine detection systems. These detection systems use acoustic and laser or video sensors to locate and classify suspect mines. Fixed and rotary wing platforms, ships, and unmanned vehicles are used for towed systems, which can rapidly assess large areas.
- Unmanned/remotely operated vehicles. These vehicles use acoustic and video or lasers to locate and classify mines and provide unique capabilities in nearshore littoral areas, surf zones, ports, and channels.

Mine Neutralization Systems

Mine neutralization systems disrupt, disable, or detonate mines to clear ports and shipping lanes, as well as littoral, surf, and beach areas in support of naval amphibious operations. The Navy analyzed the following mine neutralization systems for potential impacts to marine mammals:

- Towed influence mine sweep systems. These systems use towed equipment that mimic a particular ship's magnetic and acoustic signature triggering the mine and causing it to explode.
- Unmanned/remotely operated mine neutralization systems. Surface ships and helicopters operate these systems, which place explosive charges near or directly against mines to destroy the mine.
- Airborne projectile-based mine clearance systems. These systems neutralize mines by firing a small or medium-caliber non-explosive, supercavitating projectile from a hovering helicopter.
- Diver emplaced explosive charges. Operating from small craft, divers put explosive charges near or on mines to destroy the mine or disrupt its ability to function.

Classification of Non-Impulsive and Impulsive Sources Analyzed

In order to better organize and facilitate the analysis of about 300 sources of underwater non-impulsive sound or impulsive energy, the Navy developed a series of source classifications, or source bins. This method of analysis provides the following benefits:

- Allows for new sources to be covered under existing authorizations, as long as those sources fall within the parameters of a ''bin;''
- Simplifies the data collection and reporting requirements anticipated under the MMPA;
- Ensures a conservative approach to all impact analysis because all sources in a single bin are modeled as the most powerful source (e.g., lowest frequency, highest source level, longest duty cycle, or largest net explosive weight within that bin);
- Allows analysis to be conducted more efficiently, without compromising the results;
- Provides a framework to support the reallocation of source usage (hours/explosives) between different source bins, as long as the total number of marine mammal takes remain within the overall analyzed and authorized limits. This flexibility is required to support evolving Navy training and testing requirements, which are linked to real world events.

A description of each source classification is provided in Tables 1–3. Non-impulsive sources are grouped into bins based on the frequency, source level when warranted, and how the source would be used. Impulsive bins are based on the net explosive weight of the munitions or explosive devices. The following factors further describe how non-impulsive sources are divided:

- Frequency of the non-impulsive source:
  - Low-frequency sources operate below 1 kilohertz (kHz)
  - Mid-frequency sources operate at and above 1 kHz, up to and including 10 kHz
  - High-frequency sources operate above 10 kHz, up to and including 100 kHz
  - Very high-frequency sources operate above 100 kHz, but below 200 kHz
- Source level of the non-impulsive source:
  - Greater than 160 decibels (dB), but less than 180 dB
  - Equal to 180 dB and up to 200 dB
  - Greater than 200 dB

How a sensor is used determines how the sensor's acoustic emissions are analyzed. Factors to consider include pulse length (time source is ''on''); beam pattern (whether sound is emitted as a narrow, focused beam, or, as with most explosives, in all directions); and duty cycle (how often a transmission occurs in a given time period during an event).

There are also non-impulsive sources with characteristics that are not anticipated to result in takes of marine mammals. These sources have low source levels, narrow beam widths, downward directed transmission, short pulse lengths, frequencies beyond known hearing ranges of marine mammals, or some combination of these factors. These sources were not modeled by the Navy, but are qualitatively analyzed in Table 1–5 of the LOA application and Table 2.3.3 of the AFTT Draft EIS/OEIS.

TABLE 1—EXPLOSIVE (IMPULSIVE) TRAINING AND TESTING SOURCE CLASSES ANALYZED

Source class	Representative munitions	Net Explosive weight (lbs)
E1	Medium-caliber projectiles	0.1–0.25
E2	Medium-caliber projectiles	0.26–0.5
E3	Large-caliber projectiles	>0.5–2.5
E4	Improved Extended Echo Ranging Sonobuoy	>2.5–5.0
E5	5 in. projectiles	>5–10
E6	15 lb. shaped charge	>10–20
E7	40 lb. demo block/shaped charge	>20–60
E8	250 lb. bomb	>60–100
E9	500 lb. bomb	>100–250
E10	1,000 lb. bomb	>250–500
E11	650 lb. mine	>500–650
E12	2,000 lb. bomb	>650–1,000
E13	1,200 lb. HBX charge	>1,000–1,740
E14	2,500 lb HBX charge	>1,740–3,625
E15	5,000 lb HBX charge	>3,625–7,250

TABLE 2—ACTIVE ACOUSTIC (NON-IMPULSIVE) SOURCE CLASSES ANALYZED

Source class category	Source class	Description
Low-Frequency (LF): Sources that produce low-frequency (less than 1 kHz) signals.	LF3	Low-frequency sources greater than 200 dB.
	LF4	Low-frequency sources equal to 180 dB and up to 200 dB.
	LF5	Low-frequency sources greater than 160 dB, but less than 180 dB.
Mid-Frequency (MF): Tactical and non-tactical sources that produce mid-frequency (1 to 10 kHz) signals.	MF1	Hull-mounted surface ship sonar (e.g., AN/SQS-53C and AN/SQS–60).
	MF1K	Kingfisher mode associated with MF1 sonar.
	MF2	Hull-mounted surface ship sonar (e.g., AN/SQS–56).
	MF2K	Kingfisher mode associated with MF2 sonar.
	MF3	Hull-mounted submarine sonar (e.g., AN/BQQ–10).
	MF4	Helicopter-deployed dipping sonar (e.g., AN/AQS–22 and AN/AQS–13).
	MF5	Active acoustic sonobuoys (e.g., DICASS).
	MF6	Active sound underwater signal devices (e.g., MK–84).
	MF8	Active sources (greater than 200 dB) not otherwise binned.
	MF9	Active sources (equal to 180 dB and up to 200 dB) not otherwise binned.
	MF10	Active sources (greater than 160 dB, but less than 180 dB) not otherwise binned.
	MF11	Hull-mounted surface ship sonar with an active duty cycle greater than 80%.
	MF12	Towed array surface ship sonar with an active duty cycle greater than 80%
High-Frequency (HF): Tactical and non-tactical sources that produce high-frequency (greater than 10 kHz but less than 180 kHz) signals.	HF1	Hull-mounted submarine sonar (e.g., AN/BQQ–10).
	HF2	High-Frequency Marine Mammal Monitoring System.
	HF3	Other hull-mounted submarine sonar (classified).
	HF4	Mine detection and classification sonar (e.g., Airborne Towed Minehunting Sonar System).
	HF5	Active sources (greater than 200 dB) not otherwise binned.
	HF6	Active sources (equal to 180 dB and up to 200 dB) not otherwise binned.
	HF7	Active sources (greater than 160 dB, but less than 180 dB) not otherwise binned.
	HF8	Hull-mounted surface ship sonar (e.g., AN/SQS-61).
Anti-Submarine Warfare (ASW): Tactical sources such as active sonobuoys and acoustic countermeasures systems used during the conduct of anti-submarine warfare training and testing activities.	ASW1	Mid-frequency Deep Water Active Distributed System (DWADS).
	ASW2	Mid-frequency Multistatic Active Coherent sonobuoy (e.g., AN/SSQ–125)—Sources that are analyzed by item.
	ASW2	Mid-frequency Multistatic Active Coherent sonobuoy (e.g., AN/SSQ–125)—Sources that are analyzed by hours.
	ASW3	Mid-frequency towed active acoustic countermeasure systems (e.g., AN/SLQ–25).
	ASW4	Mid-frequency expendable active acoustic device countermeasures (e.g., MK–3).

TABLE 2—ACTIVE ACOUSTIC (NON-IMPULSIVE) SOURCE CLASSES ANALYZED—Continued

Source class category	Source class	Description
Torpedoes (TORP): Source classes associated with the active acoustic signals produced by torpedoes.	TORP1	Lightweight torpedo (e.g., MK–46, MK–54, or Anti-Torpedo Torpedo).
	TORP2	Heavyweight torpedo (e.g., MK–48).
Doppler Sonars (DS): Sonars that use the Doppler effect to aid in navigation or collect oceanographic information.	DS1	Low-frequency Doppler sonar (e.g., Webb Tomography Source).
Forward Looking Sonar (FLS): Forward or upward looking object avoidance sonars.	FLS2–FLS3	High-frequency sources with short pulse lengths, narrow beam widths, and focused beam patterns used for navigation and safety of ships.
Acoustic Modems (M): Systems used to transmit data acoustically through the water.	M3	Mid-frequency acoustic modems (greater than 190 dB).
Swimmer Detection Sonars (SD): Systems used to detect divers and submerged swimmers.	SD1–SD2	High-frequency sources with short pulse lengths, used for detection of swimmers and other objects for the purposes of port security.
Synthetic Aperture Sonars (SAS): Sonars in which active acoustic signals are post-processed to form high-resolution images of the seafloor.	SAS1	MF SAS systems.
	SAS2	HF SAS systems.
	SAS3	VHF SAS systems.

TABLE 3—EXPLOSIVE SOURCE CLASSES ANALYZED FOR NON-ANNUAL TRAINING AND TESTING ACTIVITIES

Source class	Representative munitions	Net explosive weight [1] (lbs)
E1	Medium-caliber projectiles	0.1–0.25
E2	Medium-caliber projectiles	0.26–0.5
E4	Improved Extended Echo Ranging Sonobuoy	2.6–5
E16	10,000 lb. HBX charge	7,251–14,500
E17	40,000 lb. HBX charge	14,501–58,000

TABLE 4—ACTIVE ACOUSTIC (NON-IMPULSIVE) SOURCES ANALYZED FOR NON-ANNUAL TRAINING AND TESTING

Source class category	Source class	Description
Low-Frequency (LF): Sources that produce low-frequency (less than 1 kHz) signals.	LF5	Low-frequency sources greater than 160 dB, but less than 180 dB.
Mid-Frequency (MF): Tactical and non-tactical sources that produce mid-frequency (1 to 10 kHz) signals.	MF9	Active sources (equal to 180 dB and up to 200 dB) not otherwise binned.
High-Frequency (HF): Tactical and non-tactical sources that produce high-frequency (greater than 10 kHz but less than 180 kHz) signals.	HF4	Mine detection and classification sonar (e.g., AN/AQS–20).
	HF5	Active sources (greater than 200 dB) not otherwise binned.
	HF6	Active sources (equal to 180 dB and up to 200 dB) not otherwise binned.
	HF7	Active sources (greater than 160 dB, but less than 180 dB) not otherwise binned.
Forward Looking Sonar (FLS): Forward or upward looking object avoidance sonars.	FLS2–FLS3	High-frequency sources with short pulse lengths, narrow beam widths, and focused beam patterns used for navigation and safety of ships.
Sonars (SAS): Sonars in which active acoustic signals are post-processed to form high-resolution images of the seafloor.	SAS2	HF SAS systems.

Proposed Action

The Navy proposes to continue conducting training and testing activities within the AFTT Study Area. The Navy has been conducting similar military readiness training and testing activities in the AFTT Study Area since the 1940s. Recently, these activities were analyzed in separate EISs completed between 2009 and 2011. These documents, among others, and their associated MMPA regulations and authorizations, describe the baseline of training and testing activities currently conducted in the AFTT Study Area.

To meet all future training and testing requirements, the Navy has prepared the AFTT DEIS/OEIS to analyze changes to these activities due to fluctuations in the tempo and types of training and testing activities due to changing requirements; the introduction of new technologies; the dynamic nature of

international events; advances in warfighting doctrine and procedures; and changes in basing locations for ships, aircraft, and personnel (force structure changes). Such developments have influenced the frequency, duration, intensity, and location of required training and testing. In addition, the Study Area has expanded beyond the areas included in previous NMFS authorizations. The expansion of the Study Area does not represent an increase in areas where the Navy will train and test, but is merely an expansion of the area to be included in the proposed incidental take authorization.

Training

The Navy proposes to conduct training activities in the AFTT Study Area as described in Table 5 of this proposed rule. Detailed information about each proposed activity (stressor, training event, description, sound source, duration, and geographic location) can be found in Appendix A of the AFTT DEIS/OEIS. The Navy's proposed action is an adjustment to existing baseline training activities to accommodate the following:

- Force structure changes including the relocation of ships, aircraft, and personnel to meet Navy needs. As forces are moved within the existing Navy structure, training needs will necessarily change as the location of forces change.
- Development and introduction of new ships, aircraft, and new weapons systems;
- Current training activities that were not addressed in previous documents.

TABLE 5—TRAINING ACTIVITIES WITHIN THE STUDY AREA

Stressor	Training event	Description	Source class	Number of events per year
Anti-Submarine Warfare (ASW)				
Non-Impulsive	Tracking Exercise/Torpedo Exercise—Submarine (TRACKEX/TORPEX—Sub).	Submarine crews search, track, and detect submarines. Exercise torpedoes may be used during this event.	ASW4; MF3; HF1; TORP2.	102
Non-Impulsive	Tracking Exercise/Torpedo Exercise—Surface (TRACKEX/TORPEX—Surface).	Surface ship crews search, track and detect submarines. Exercise torpedoes may be used during this event.	ASW1,3,4; MF1,2,3,4,5,11,12; HF1; TORP1.	764
Non-Impulsive	Tracking Exercise/Torpedo Exercise—Helicopter (TRACKEX/TORPEX—Helo).	Helicopter crews search, detect and track submarines. Recoverable air launched torpedoes may be employed against submarine targets.	ASW4; MF4,5; TORP1.	432
Non-Impulsive	Tracking Exercise/Torpedo Exercise—Maritime Patrol Aircraft (TRACKEX/TORPEX—MPA).	Maritime patrol aircraft crews search, detect, and track submarines. Recoverable air launched torpedoes may be employed against submarine targets.	MF5; TORP1	752
Non-Impulsive	Tracking Exercise—Maritime Patrol Aircraft Extended Echo Ranging Sonobuoy (TRACKEX—MPA sonobuoy).	Maritime patrol aircraft crews search, detect, and track submarines with extended echo ranging sonobuoys. Recoverable air launched torpedoes may be employed against submarine targets.	ASW2	160
Non-Impulsive	Anti-Submarine Warfare Tactical Development Exercise.	Multiple ships, aircraft and submarines coordinate their efforts to search, detect and track submarines with the use of all sensors. Anti-Submarine Warfare Tactical Development Exercise is a dedicated ASW event.	ASW3,4; HF1; MF1,2,3,4,5.	4
Non-Impulsive	Integrated Anti-Submarine Warfare Course (IAC).	Multiple ships, aircraft, and submarines coordinate the use of their sensors, including sonobuoys, to search, detect and track threat submarines. IAC is an intermediate level training event and can occur in conjunction with other major exercises.	ASW 3,4; HF1; MF1,2,3,4,5.	5
Non-Impulsive	Group Sail	Multiple ships and helicopters integrate the use of sensors, including sonobuoys, to search, detect and track a threat submarine. Group sails are not dedicated ASW events and involve multiple warfare areas.	ASW 2,3; HF1; MF1,2,3,4,5.	20
Non-Impulsive	ASW for Composite Training Unit Exercise (COMPTUEX).	Anti-Submarine Warfare activities conducted during a COMPTUEX.	ASW 2,3,4; HF1; MF1,2,3,4,5,12.	5
Non-Impulsive	ASW for Joint Task Force Exercise (JTFEX)/Sustainment Exercise (SUSTAINEX).	Anti-Submarine Warfare activities conducted during a JTFEX/SUSTAINEX.	ASW2,3,4; HF1; MF1,2,3,4,5,12.	4
Mine Warfare (MIW)				
Non-Impulsive	Mine Countermeasures Exercise (MCM)—Ship Sonar.	Littoral combat ship crews detect and avoid mines while navigating restricted areas or channels using active sonar.	HF4	116
Non-Impulsive	Mine Countermeasures—Mine Detection.	Ship crews and helicopter aircrews detect mines using towed and laser mine detection systems (e.g., AN/AQS–20, ALMDS).	HF4	2,538

TABLE 5—TRAINING ACTIVITIES WITHIN THE STUDY AREA—Continued

Stressor	Training event	Description	Source class	Number of events per year
Non-Impulsive	Coordinated Unit Level Helicopter Airborne Mine Countermeasure Exercises.	Helicopters aircrew members train as a squadron in the use of airborne mine countermeasures, such as towed mine detection and neutralization systems.	HF4	8
Non-Impulsive	Civilian Port Defense	Maritime security operations for military and civilian ports and harbors. Marine mammal systems may be used during the exercise.	HF4	1 event every other year.
		Other Training Activities		
Non-Impulsive	Submarine Navigational (SUB NAV).	Submarine crews locate underwater objects and ships while transiting in and out of port.	HF1; MF3	282
Non-Impulsive	Submarine Navigation Under Ice Certification.	Submarine crews train to operate under ice. During training and certification other submarines and ships simulate ice.	HF1	24
Non-Impulsive	Surface Ship Object Detection	Surface ship crews locate underwater objects that may impede transit in and out of port.	MF1K; MF2K	144
Non-Impulsive	Surface Ship Sonar Maintenance.	Pierside and at-sea maintenance of sonar systems.	MF1,2	824
Non-Impulsive	Submarine Sonar Maintenance	Pierside and at-sea maintenance of sonar systems.	MF3	220
		Amphibious Warfare (AMW)		
Impulsive	Naval Surface Fire Support Exercise—At Sea (FIREX [At Sea]).	Surface ship crews use large-caliber guns to support forces ashore; however, the land target is simulated at sea. Rounds impact the water and are scored by passive acoustic hydrophones located at or near the target area.	E5	50
		Anti-Surface Warfare (ASUW)		
Impulsive	Maritime Security Operations (MSO)—Anti-swimmer Grenades.	Helicopter and surface ship crews conduct a suite of Maritime Security Operations (e.g., Visit, Board, Search, and Seizure; Maritime Interdiction Operations; Force Protection; and Anti-Piracy Operation).	E2	12
Impulsive	Gunnery Exercise (Surface-to-Surface) (Ship)—Medium-Caliber (GUNEX [S–S]—Ship).	Ship crews engage surface targets with ship's medium-caliber guns.	E1; E2	827
Impulsive	Gunnery Exercise (Surface-to-Surface) (Ship)—Large-Caliber (GUNEX [S–S]—Ship).	Ship crews engage surface targets with ship's large-caliber guns.	E3; E5	294
Impulsive	Gunnery Exercise (Surface-to-Surface) (Boat) (GUNEX [S–S]—Boat).	Small boat crews engage surface targets with small and medium-caliber guns.	E1; E2	434
Impulsive	Missile Exercise (Surface-to-Surface) (MISSILEX [S–S]).	Surface ship crews defend against threat missiles and other surface ships with missiles.	E10	20
Impulsive	Gunnery Exercise (Air-to-Surface) (GUNEX [A–S]).	Fixed-wing and helicopter aircrews, including embarked personnel, use small and medium-caliber guns to engage surface targets.	E1; E2	715
Impulsive	Missile Exercise (Air-to-Surface)—Rocket (MISSILEX [A–S]).	Fixed-wing and helicopter aircrews fire both precision-guided missiles and unguided rockets against surface targets.	E5	210
Impulsive	Missile Exercise (Air-to-Surface) (MISSILEX [A–S]).	Fixed-wing and helicopter aircrews fire both precision-guided missiles and unguided rockets against surface targets.	E6; E8	248
Impulsive	Bombing Exercise (Air-to-Surface) (BOMBEX [A–S]).	Fixed-wing aircrews deliver bombs against surface targets.	E8; E9; E10; E12	930
Impulsive	Sinking Exercise (SINKEX)	Aircraft, ship, and submarine crews deliver ordnance on a seaborne target, usually a deactivated ship, which is deliberately sunk using multiple weapon systems.	E3; E5; E8; E9; E10;E11;E12.	1

TABLE 5—TRAINING ACTIVITIES WITHIN THE STUDY AREA—Continued

Stressor	Training event	Description	Source class	Number of events per year
Anti-Submarine Warfare (ASW)				
Impulsive	Tracking Exercise—Maritime Patrol Aircraft Extended Echo Ranging Sonobuoy (TRACKEX—MPA sonobuoy).	Maritime patrol aircraft crews search, detect, and track submarines with extended echo ranging sonobuoys. Recoverable air launched torpedoes may be employed against submarine targets..	E4	160
Impulsive	Group Sail	Multiple ships and helicopters integrate the use of sensors, including sonobuoys, to search, detect and track a threat submarine. Group sails are not dedicated ASW events and involve multiple warfare areas.	E4	20
Impulsive	ASW for Composite Training Unit Exercise (COMPTUEX).	Anti-Submarine Warfare activities conducted during a COMPTUEX.	E4	4
Impulsive	ASW for Joint Task Force Exercise (JTFEX)/Sustainment Exercise (SUSTAINEX).	Anti-Submarine Warfare activities conducted during a JTFEX/SUSTAINEX.	E4	4
Mine Warfare (MIW)				
Impulsive	Explosive Ordnance Disposal (EOD)/Mine Neutralization.	Personnel disable threat mines. Explosive charges may be used.	E1; E4; E5; E6; E7; E8.	618
Impulsive	Mine Countermeasures—Mine Neutralization—Remotely Operated Vehicles.	Ship crews and helicopter aircrews disable mines using remotely operated underwater vehicles.	E4	508
Impulsive	Civilian Port Defense	Maritime security operations for military and civilian ports and harbors. Marine mammal systems may be used during the exercise.	E2; E4	1 event every other year.
Pile Driving and Pile Removal				
Impulsive	Elevated Causeway System (ELCAS).	A temporary pier is constructed off the beach. Supporting pilings are driven into the sand and then later removed. The Elevated Causeway System is a portion of a larger activity Joint Logistics Over the Shore (JLOTS) which is covered under separate documentation. Construction would involve intermittent impact pile driving of 24-inch, uncapped, steel pipe piles over approximately 2 weeks. Crews work 24 hours a day and can drive approximately 8 piles in that period. Each pile takes about 10 minutes to drive. When training events that use the elevated causeway system are complete, the piles would be removed using vibratory methods over approximately 6 days. Crews can remove about 14 piles per 24-hour period, each taking about 6 minutes to remove.		1

Testing

The Navy's proposed testing activities are described in Tables 6 and 7. Detailed information about each proposed activity (stressor, testing event, description, sound source, duration, and geographic location) can be found in Appendix A of the AFTT DEIS/OEIS. NMFS used the detailed information in Appendix A of the AFTT DEIS/OEIS to analyze the potential impacts on marine mammals; however, the Navy's proposed action is summarized in the Tables based on the type of sound source.

TABLE 6—NAVAL AIR SYSTEMS COMMAND TESTING ACTIVITIES WITHIN THE STUDY AREA

Stressor	Testing event	Description	Source class	Number of events per year
Anti-Submarine Warfare (ASW)				
Non-Impulsive	Anti-Submarine Warfare Torpedo Test.	This event is similar to the training event Torpedo Exercise. The test evaluates anti-submarine warfare systems onboard rotary wing and fixed wing aircraft and the ability to search for, detect, classify, localize, and track a submarine or similar target.	TORP1	242
Non-Impulsive	Kilo Dip	A kilo dip is the operational term used to describe a functional check of a helicopter deployed dipping sonar system. The sonar system is briefly activated to ensure all systems are functional. A kilo dip is simply a precursor to more comprehensive testing.	MF4	43
Non-Impulsive	Sonobuoy Lot Acceptance Test	Sonobuoys are deployed from surface vessels and aircraft to verify the integrity and performance of a lot, or group, of sonobuoys in advance of delivery to the Fleet for operational use.	ASW2; MF5,6	39
Non-Impulsive	ASW Tracking Test—Helicopter	This event is similar to the training event anti-submarine warfare Tracking Exercise—Helicopter. The test evaluates the sensors and systems used to detect and track submarines and to ensure that helicopter systems used to deploy the tracking systems perform to specifications.	MF4,5	428
Non-Impulsive	ASW Tracking Test—Maritime Patrol Aircraft.	This event is similar to the training event anti-submarine warfare Tracking Exercise—Maritime Patrol Aircraft. The test evaluates the sensors and systems used by maritime patrol aircraft to detect and track submarines and to ensure that aircraft systems used to deploy the tracking systems perform to specifications and meet operational requirements.	ASW2; MF5,6	75
Mine Warfare (MIW)				
Non-Impulsive	Airborne Towed Minehunting Sonar System Test.	Tests of the Airborne Towed Minehunting Sonar System to evaluate the search capabilities of this towed, mine hunting, detection, and classification system. The sonar on the Airborne Towed Minehunting Sonar System identifies mine-like objects in the deeper parts of the water column.	HF4	155
Anti-Surface Warfare (ASUW)				
Impulsive	Air to Surface Missile Test	This event is similar to the training event Missile Exercise Air to Surface. Test may involve both fixed wing and rotary wing aircraft launching missiles at surface maritime targets to evaluate the weapons system or as part of another systems integration test.	E6; E10	239
Impulsive	Air to Surface Gunnery Test	This event is similar to the training event Gunnery Exercise Air to Surface. Strike fighter and helicopter aircrews evaluate new or enhanced aircraft guns against surface maritime targets to test that the gun, gun ammunition, or associated systems meet required specifications or to train aircrew in the operation of a new or enhanced weapons system.	E1	165
Impulsive	Rocket Test	Rocket testing evaluates the integration, accuracy, performance, and safe separation of laser-guided and unguided 2.75-in rockets fired from a hovering or forward flying helicopter or from a fixed wing strike aircraft.	E5	332

TABLE 6—NAVAL AIR SYSTEMS COMMAND TESTING ACTIVITIES WITHIN THE STUDY AREA—Continued

Stressor	Testing event	Description	Source class	Number of events per year
Anti-Submarine Warfare (ASW)				
Impulsive	Sonobuoy Lot Acceptance Test	Sonobuoys are deployed from surface vessels and aircraft to verify the integrity and performance of a lot, or group, of sonobuoys in advance of delivery to the Fleet for operational use.	E3; E4	39
Impulsive	ASW Tracking Test—Helicopter	This event is similar to the training event anti-submarine warfare Tracking Exercise—Helicopter. The test evaluates the sensors and systems used to detect and track submarines and to ensure that helicopter systems used to deploy the tracking systems perform to specifications.	E3	428
Impulsive	ASW Tracking Test—Maritime Patrol Aircraft.	This event is similar to the training event anti-submarine warfare Tracking Exercise—Maritime Patrol Aircraft. The test evaluates the sensors and systems used by maritime patrol aircraft to detect and track submarines and to ensure that aircraft systems used to deploy the tracking systems perform to specifications and meet operational requirements.	E3; E4	75
Mine Warfare (MIW)				
Impulsive	Airborne Mine Neutralization System Test.	Airborne mine neutralization tests evaluate the system's ability to detect and destroy mines. The Airborne Mine Neutralization System Test uses up to four unmanned underwater vehicles equipped with HF sonar, video cameras, and explosive neutralizers.	E4; E11	165
Impulsive	Airborne Projectile-based Mine Clearance System.	An MH–60S helicopter uses a laser-based detection system to search for mines and to fix mine locations for neutralization with an airborne projectile-based mine clearance system. The system neutralizes mines by firing a small or medium-caliber inert, supercavitating projectile from a hovering helicopter.	E11	237
Impulsive	Airborne Towed Minesweeping Test.	Tests of the Airborne Towed Minesweeping System would be conducted by a MH–60S helicopter to evaluate the functionality of the system and the MH–60S at sea. The system is towed from a forward flying helicopter and works by emitting an electromagnetic field and mechanically generated underwater sound to simulate the presence of a ship. The sound and electromagnetic signature cause nearby mines to explode.	E11	72

TABLE 7—NAVAL SEA SYSTEMS COMMAND TESTING ACTIVITIES WITHIN THE STUDY AREA

Stressor	Testing event	Description	Source class	Number of events per year
New Ship Construction				
Non-Impulsive	Surface Combatant Sea Trials—Pierside Sonar Testing.	Tests ship's sonar systems pierside to ensure proper operation.	MF1,9,10; MF1K	12.
Non-Impulsive	Surface Combatant Sea Trials—Anti-Submarine Warfare Testing.	Ships demonstrate capability of countermeasure systems and underwater surveillance and communications systems.	ASW3; MF 1,9,10; MF1K	10.
Non-Impulsive	Submarine Sea Trials—Pierside Sonar Testing.	Tests ship's sonar systems pierside to ensure proper operation.	M3; HF1; MF3,10	6
Non-Impulsive	Submarine Sea Trials—Anti-Submarine Warfare Testing.	Submarines demonstrate capability of underwater surveillance and communications systems.	M3; HF1; MF3,10	12.

TABLE 7—NAVAL SEA SYSTEMS COMMAND TESTING ACTIVITIES WITHIN THE STUDY AREA—Continued

Stressor	Testing event	Description	Source class	Number of events per year
Non-Impulsive	Anti-submarine Warfare Mission Package Testing.	Ships and their supporting platforms (e.g., helicopters, unmanned aerial vehicles) detect, localize, and prosecute submarines.	ASW1,3; MF4,5,12; TORP1.	24.
Non-Impulsive	Mine Countermeasure Mission Package Testing.	Ships conduct mine countermeasure operations.	HF4	8.
Life Cycle Activities				
Non-Impulsive	Surface Ship Sonar Testing/Maintenance.	Pierside and at-sea testing of ship systems occurs periodically following major maintenance periods and for routine maintenance.	ASW3; MF1, 9,10; MF1K	16.
Non-Impulsive	Submarine Sonar Testing/ Maintenance.	Pierside and at-sea testing of submarine systems occurs periodically following major maintenance periods and for routine maintenance.	HF1,3; M3; MF3	28.
Non-Impulsive	Combat System Ship Qualification Trial (CSSQT)—In-port Maintenance Period.	All combat systems are tested to ensure they are functioning in a technically acceptable manner and are operationally ready to support at-sea CSSQT events.	MF1	12.
Non-Impulsive	Combat System Ship Qualification Trial (CSSQT)—Undersea Warfare (USW).	Tests ships ability to track and defend against undersea targets.	HF4; MF1,2,4,5; TORP1 ..	9.
NAVSEA Range Activities				
Naval Surface Warfare Center, Panama City Division (NSWC PCD)				
Non-Impulsive	Unmanned Underwater Vehicles Demonstration.	Testing and demonstrations of multiple Unmanned Underwater Vehicles and associated acoustic, optical, and magnetic systems.	HF5,6,7; LF5; FLS2; MF9; SAS2.	1 per 5 year period.
Non-Impulsive	Mine Detection and Classification Testing.	Air, surface, and subsurface vessels detect and classify mines and mine-like objects.	HF1,4; MF1K; SAS2	81.
Non-Impulsive	Stationary Source Testing	Stationary equipment (including swimmer defense systems) is deployed to determine functionality.	LF4; MF8; SD1,2	11.
Non-Impulsive	Special Warfare Testing ...	Testing of submersibles capable of inserting and extracting personnel and/or payloads into denied areas from strategic distances.	MF9	110.
Non-Impulsive	Unmanned Underwater Vehicle Testing.	Unmanned Underwater Vehicles are deployed to evaluate hydrodynamic parameters, to full mission, multiple vehicle functionality assessments.	FLS2; HF 5,6,7; LF5; MF9; SAS2.	88.
Naval Undersea Warfare Center Division, Newport (NUWCDIVNPT)				
Non-Impulsive	Torpedo Testing	Non-explosive torpedoes are launched to record operational data. All torpedoes are recovered.	TORP1; TORP2	30.
Non-Impulsive	Towed Equipment Testing	Surface vessel or Unmanned Underwater Vehicle deploys equipment to determine functionality of towed systems.	LF4; MF9; SAS1	33.
Non-Impulsive	Unmanned Underwater Vehicle Testing.	Unmanned Underwater Vehicles are deployed to evaluate hydrodynamic parameters, to full mission, multiple vehicle functionality assessments.	HF6,7; LF5; MF10; SAS2	123.
Non-Impulsive	Semi-Stationary Equipment Testing.	Semi-stationary equipment (e.g., hydrophones) is deployed to determine functionality.	ASW3,4; HF 5,6; LF 4,5; MF9,10.	154.
Non-Impulsive	Unmanned Underwater Vehicle Demonstrations.	Testing and demonstrations of multiple Unmanned Underwater Vehicles and associated acoustic, optical, and magnetic systems.	FLS2; HF5,6,7; LF5; MF9; SAS2.	1 per 5 year period.

TABLE 7—NAVAL SEA SYSTEMS COMMAND TESTING ACTIVITIES WITHIN THE STUDY AREA—Continued

Stressor	Testing event	Description	Source class	Number of events per year
Non-Impulsive	Pierside Integrated Swimmer Defense Testing.	Swimmer defense testing ensures that systems can effectively detect, characterize, verify, and defend against swimmer/diver threats in harbor environments.	LF4; MF8; SD1	6.
South Florida Ocean Measurement Facility (SFOMF)				
Non-Impulsive	Signature Analysis Activities.	Testing of electromagnetic, acoustic, optical, and radar signature measurements of surface ship and submarine.	ASW2; HF1,6; LF4; M3; MF9.	18.
Non-Impulsive	Mine Testing	Air, surface, and sub-surface systems detect, counter, and neutralize ocean-deployed mines.	HF4	33.
Non-Impulsive	Surface Testing	Various surface vessels, moored equipment and materials are testing to evaluate performance in the marine environment.	FLS2; HF5,6,7; LF5; MF9; SAS2.	33.
Non-Impulsive	Unmanned Underwater Vehicles Demonstrations.	Testing and demonstrations of multiple Unmanned Underwater Vehicles and associated acoustic, optical, and magnetic systems.	FLS2; HF5,6,7; LF5; MF9; SAS2.	1 per 5 year period.
Additional Activities at Locations Outside of NAVSEA Ranges				
Anti-Surface Warfare (ASUW)/Anti-Submarine Warfare (ASW) Testing				
Non-Impulsive	Torpedo (Non-explosive) Testing.	Air, surface, or submarine crews employ inert torpedoes against submarines or surface vessels. All torpedoes are recovered.	ASW3,4; HF1; M3; MF1,3,4,5; TORP1,2.	26.
Non-Impulsive	Torpedo (Explosive) Testing.	Air, surface, or submarine crews employ explosive torpedoes against artificial targets or deactivated ships.	TORP1; TORP2	2.
Non-Impulsive	Countermeasure Testing ..	Towed sonar arrays and anti-torpedo torpedo systems are employed to detect and neutralize incoming weapons.	ASW3; HF5; TORP 1,2	3.
Non-Impulsive	Pierside Sonar Testing	Pierside testing to ensure systems are fully functional in a controlled pierside environment prior to at-sea test activities.	ASW3; HF1,3; M3; MF1,3	23.
Non-Impulsive	At-sea Sonar Testing	At-sea testing to ensure systems are fully functional in an open ocean environment.	ASW4; HF1; M3; MF3	15.
Mine Warfare (MIW) Testing				
Non-Impulsive	Mine Detection and Classification Testing.	Air, surface, and subsurface vessels detect and classify mines and mine-like objects.	HF4	66.
Non-Impulsive	Mine Countermeasure/ Neutralization Testing.	Air, surface, and subsurface vessels neutralize threat mines that would otherwise restrict passage through an area.	HF4; M3	14.
Shipboard Protection Systems and Swimmer Defense Testing				
Non-Impulsive	Pierside Integrated Swimmer Defense Testing.	Swimmer defense testing ensures that systems can effectively detect, characterize, verify, and defend against swimmer/diver threats in harbor environments.	LF4; MF8; SD1	3.
Unmanned Vehicle Testing				
Non-Impulsive	Unmanned Vehicle Development and Payload Testing.	Vehicle development involves the production and upgrade of new unmanned platforms on which to attach various payloads used for different purposes.	MF9; SAS2	111.

TABLE 7—NAVAL SEA SYSTEMS COMMAND TESTING ACTIVITIES WITHIN THE STUDY AREA—Continued

Stressor	Testing event	Description	Source class	Number of events per year
Other Testing Activities				
Non-Impulsive	Special Warfare Testing	Special warfare includes testing of submersibles capable of inserting and extracting personnel and/or payloads into denied areas from strategic distances.	HF1; M3; MF9	4.
Ship Construction and Maintenance				
New Ship Construction				
Impulsive	Aircraft Carrier Sea Trials—Gun Testing—Medium-Caliber.	Medium-caliber gun systems are tested using non-explosive and explosive rounds.	E1	410.
Impulsive	Surface Warfare Mission Package—Gun Testing-Medium Caliber.	Ships defense against surface targets with medium-caliber guns.	E1	5.
Impulsive	Surface Warfare Mission Package—Gun Testing-Large Caliber.	Ships defense against surface targets with large-caliber guns.	E3	5.
Impulsive	Surface Warfare Mission Package—Missile/Rocket Testing.	Ships defense against surface targets with medium range missiles or rockets.	E6	15.
Impulsive	Mine Countermeasure Mission Package Testing.	Ships conduct mine countermeasure operations..	E4	8.
Ship Shock Trials				
Impulsive	Aircraft Carrier Full Ship Shock Trial.	Explosives are detonated underwater against surface ships.	E17	1 per 5 year period.
Impulsive	DDG 1000 Zumwalt Class Destroyer Full Ship Shock Trial.	Explosives are detonated underwater against surface ships.	E16	1 per 5 year period.
Impulsive	Littoral Combat Ship Full Ship Shock Trial.	Explosives are detonated underwater against surface ships.	E16	2 per 5 year period.
NAVSEA Range Activities				
Naval Surface Warfare Center, Panama City Division (NSWC PCD)				
Impulsive	Mine Countermeasure/ Neutralization Testing.	Air, surface, and subsurface vessels neutralize threat mines and mine-like objects.	E4	15.
Impulsive	Ordnance Testing	Airborne and surface crews defend against surface targets with small-, medium-, and large-caliber guns, as well as line charge testing.	E5; E14	37.
Additional Activities at Locations Outside of NAVSEA Ranges				
Anti-Surface Warfare (ASUW)/Anti-Submarine Warfare (ASW) Testing				
Impulsive	Torpedo (Explosive) Testing.	Air, surface, or submarine crews employ explosive torpedoes against artificial targets or deactivated ships.	E8; E11	2.
Mine Warfare (MIW) Testing				
Impulsive	Mine Countermeasure/ Neutralization Testing.	Air, surface, and subsurface vessels neutralize threat mines that would otherwise restrict passage through an area.	E4; E8	14.
Other Testing Activities				
Impulsive	At-Sea Explosives Testing	Explosives are detonated at sea	E5	4.

Vessels

Vessels used as part of the proposed action include ships, submarines, Unmanned Undersea Vehicles (UUVs), and boats ranging in size from small, 16 ft (5 m) Rigid Hull Inflatable Boats to 1,092-ft (333 m) long aircraft carriers. Representative Navy vessel types, lengths, and speeds used in both training and testing activities are shown in Table 5 of this proposed rule. While these speeds are representative, some vessels operate outside of these speeds due to unique training, testing, or safety requirements for a given event. Examples include increased speeds needed for flight operations, full speed runs to test engineering equipment, time critical positioning needs, etc. Examples of decreased speeds include speeds less than 5 knots or completely stopped for launching small boats, certain tactical maneuvers, target launch or retrievals, UUVs, etc.

The number of Navy vessels in the Study Area varies based on training and testing schedules. These activities could be widely dispersed throughout the Study Area, but would be more concentrated near naval ports, piers, and range areas. Activities involving vessel movements occur intermittently and are variable in duration, ranging from a few hours up to 2 weeks. Navy vessel traffic would especially be concentrated near Naval Station Norfolk in Norfolk, VA and Naval Station Mayport in Jacksonville, FL. Surface and sub-surface vessel operations in the Study Area may result in marine mammal strikes.

TABLE 8—TYPICAL NAVY BOAT AND VESSEL TYPES WITH LENGTH GREATER THAN 18 METERS USED WITHIN THE AFTT STUDY AREA

Vessel Type (>18 m)	Example(s) (specifications in meters (m) for length, metric tons (mt) for mass, and knots for speed)	Typical operating speed (knots)
Aircraft Carrier	Aircraft Carrier (CVN) length: 333 m beam: 41 m draft: 12 m displacement: 81,284 mt max. speed: 30+ knots.	10 to 15.
Surface Combatants	Cruiser (CG) length: 173 m beam: 17 m draft: 10 m displacement: 9,754 mt max. speed: 30+ knots. Destroyer (DDG). length: 155 m beam: 18 m draft: 9 m displacement: 9,648 mt max. speed: 30+ knots. Frigate (FFG). length: 136 m beam: 14 m draft: 7 m displacement: 4,166 mt max. speed: 30+ knots. Littoral Combat Ship (LCS). length: 115 m beam: 18 m draft: 4 m displacement: 3,000 mt max. speed: 40+ knots.	10 to 15.
Amphibious Warfare Ships	Amphibious Assault Ship (LHA, LHD) length: 253 m beam: 32 m draft: 8 m displacement: 42,442 mt max. speed: 20+knots. Amphibious Transport Dock (LPD). length: 208 m beam: 32 m draft: 7 m displacement: 25,997 mt max. speed: 20+knots. Dock Landing Ship (LSD). length: 186 m beam: 26 m draft: 6 m displacement: 16,976 mt max. speed: 20+knots.	10 to 15.
Mine Warship Ship	Mine Countermeasures Ship (MCM) length: 68 m beam: 12 m draft: 4 m displacement: 1,333 max. speed: 14 knots.	5 to 8.
Submarines	Attack Submarine (SSN) length: 115 m beam: 12 m draft: 9 m displacement: 12,353 mt max. speed: 20+knots. Guided Missile Submarine (SSGN). length: 171 m beam: 13 m draft: 12 m displacement: 19,000 mt max. speed: 20+knots.	8 to 13.
Combat Logistics Force Ships	Fast Combat Support Ship (T–AOE) length: 230 m beam: 33 m draft: 12 m displacement: 49,583 max. speed: 25 knots. Dry Cargo/Ammunition Ship (T–AKE). length: 210 m beam: 32 m draft: 9 m displacement: 41,658 mt max speed: 20 knots. Fleet Replenishment Oilers (T–AO). length: 206 m beam: 30 m draft: 11 m displacement: 42,674 mt max. speed: 20 knots. Fleet Ocean Tugs (T–ATF). length: 69 m beam: 13 m draft: 5 m displacement: 2,297 max. speed: 14 knots.	8 to 12.
Support Craft/Other	Landing Craft, Utility (LCU) length: 41m beam: 9 m draft: 2 m displacement: 381 mt max. speed: 11 knots. Landing Craft, Mechanized (LCM). length: 23 m beam: 6 m draft: 1 m displacement: 107 mt max. speed: 11 knots.	3 to 5.

TABLE 8—TYPICAL NAVY BOAT AND VESSEL TYPES WITH LENGTH GREATER THAN 18 METERS USED WITHIN THE AFTT STUDY AREA—Continued

Vessel Type (>18 m)	Example(s) (specifications in meters (m) for length, metric tons (mt) for mass, and knots for speed)	Typical operating speed (knots)
Support Craft/Other Specialized High Speed.	MK V Special Operations Craft ..... length: 25 m beam: 5 m displacement: 52 mt max. speed: 50 knots	Variable.

Duration and Location

Training and testing activities would be conducted in the AFTT Study Area throughout the year from January 2014 to January 2019. The AFTT Study Area is in the western Atlantic Ocean and encompasses the east coast of North America and the Gulf of Mexico. The Study Area has expanded slightly beyond the areas included in previous Navy authorizations. However, this expansion is not an increase in the Navy's training and testing area, but merely an increase in the area to be analyzed under an incidental take authorization in support of the AFTT EIS/OEIS. The Study Area includes several existing study areas, range complexes, and testing ranges: The Atlantic Fleet Active Sonar Training (AFAST) Study Area; Northeast Range Complexes; Naval Undersea Warfare Center Division, Newport (NUWCDIVNPT) Testing Range; Virginia Capes (VACAPES) Range Complex; Cherry Point (CHPT) Range Complex; Jacksonville (JAX) Range Complex; Naval Surface Warfare Center (NSWC) Carderock Division, South Florida Ocean Measurement Facility (SFOMF) Testing Range; Key West Range Complex; Gulf of Mexico (GOMEX); and Naval Surface Warfare Center, Panama City Division (NSWC PCD) Testing Range. In addition, the Study Area includes Narragansett Bay, the lower Chesapeake Bay and St. Andrew Bay for training and testing activities. Ports included for Civilian Port Defense training events include Earle, New Jersey; Groton, Connecticut; Norfolk, Virginia; Morehead City, North Carolina; Wilmington, North Carolina; Kings Bay, Georgia; Mayport, Florida; Beaumont, Texas; and Corpus Christi, Texas.

The Study Area includes pierside locations where Navy surface ship and submarine sonar maintenance and testing occur. Pierside locations include channels and transit routes in ports and facilities associated with ports and shipyards. These locations in the AFTT Study Area are located at the following Navy ports and naval shipyards:

- Portsmouth Naval Shipyard, Kittery, Maine;
- Naval Submarine Base New London, Groton, Connecticut;
- Naval Station Norfolk, Norfolk, Virginia;
- Joint Expeditionary Base Little Creek—Fort Story, Virginia Beach, Virginia;
- Norfolk Naval Shipyard, Portsmouth, Virginia;
- Naval Submarine Base Kings Bay, Kings Bay, Georgia;
- Naval Station Mayport, Jacksonville, Florida; and
- Port Canaveral, Cape Canaveral, Florida.

Navy-contractor shipyards in the following cities are also in the Study Area:

- Bath, Maine;
- Groton, Connecticut;
- Newport News, Virginia; and
- Pascagoula, Mississippi.

More detailed information is provided in the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm*).

Description of Marine Mammals in the Area of the Specified Activities

There are 48 marine mammal species with possible or known occurrence in the AFTT Study Area, 45 of which are managed by NMFS. As indicated in Table 9, there are 39 cetacean species (8 mysticetes and 31 odontocetes) and six pinnipeds. Seven marine mammal species are listed under the Endangered Species Act: Bowhead whale, North Atlantic right whale, humpback whale, sei whale, fin whale, blue whale, and sperm whale.

TABLE 9—MARINE MAMMAL OCCURRENCE WITHIN THE AFTT STUDY AREA

Common name	Scientific name [1]	ESA/MMPA status [2]	Stock [3]	Stock abundance [3] best (CV)/min	Occurrence in study area [4]		
					Open ocean	Large marine ecosystems	Bays, rivers, and estuaries
Order Cetacea							
Suborder Mysticeti (baleen whales)							
Family Balaenidae (right whales)							
North Atlantic right whale.	Eubalaena glacialis.	Endangered, Strategic, Depleted.	Western North Atlantic.	361 (0)/361	Gulf Stream, Labrador Current.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Bowhead whale	Balaena mysticetus.	Endangered, Strategic, Depleted.	West Greenland ..	1,230 [5]/490–2,940	Labrador Current	Newfoundland-Labrador Shelf, West Greenland Shelf.	

TABLE 9—MARINE MAMMAL OCCURRENCE WITHIN THE AFTT STUDY AREA—Continued

Common name	Scientific name [1]	ESA/MMPA status [2]	Stock [3]	Stock abundance [3] best (CV)/min	Occurrence in study area [4]		
					Open ocean	Large marine ecosystems	Bays, rivers, and estuaries
Family Balaenopteridae (rorquals)							
Humpback whale ..	Megaptera novaeangliae.	Endangered, Strategic, Depleted.	Gulf of Maine	847 (0.55)/549	Gulf Stream, North Atlantic Gyre, Labrador Current.	Gulf of Mexico, Caribbean Sea, Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Minke whale	Balaenoptera acutorostrata.	.....	Canadian east coast.	8,987 (0.32)/6,909	Gulf Stream, North Atlantic Gyre, Labrador Current.	Caribbean Sea, Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Bryde's whale	Balaenoptera brydei/edeni.	.....	Gulf of Mexico Oceanic.	15 (1.98)/5	Gulf Stream, North Atlantic Gyre.	Gulf of Mexico, Caribbean Sea, Southeast U.S. Continental Shelf.	
Sei whale	Balaenoptera borealis.	Endangered, Strategic, Depleted.	Nova Scotia	386 (0.85)/208	Gulf Stream, North Atlantic Gyre, Labrador Current.	Gulf of Mexico, Caribbean Sea, Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Fin whale	Balaenoptera physalus.	Endangered, Strategic, Depleted.	Western North Atlantic.	3,985 (0.24)/3,269	Gulf Stream, North Atlantic Gyre, Labrador Current.	Caribbean Sea, Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Blue whale	Balaenoptera musculus.	Endangered, Strategic, Depleted.	Western North Atlantic.	NA/440 [6]	Gulf Stream, North Atlantic Gyre, Labrador Current.	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Suborder Odontoceti (toothed whales)							
Family Physeteridae (sperm whale)							
Sperm whale	Physeter macrocephalus.	Endangered, Strategic, Depleted.	North Atlantic	4,804 (0.38)/3,539	Gulf Stream, North Atlantic Gyre, Labrador Current.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
		Endangered, Strategic, Depleted.	Gulf of Mexico Oceanic.	1,665 (0.2)/1,409	.....	Gulf of Mexico.	
		Endangered, Strategic, Depleted.	Puerto Rico and U.S. Virgin Islands.	unknown	North Atlantic Gyre.	Caribbean Sea.	

TABLE 9—MARINE MAMMAL OCCURRENCE WITHIN THE AFTT STUDY AREA—Continued

Common name	Scientific name [1]	ESA/MMPA status [2]	Stock [3]	Stock abundance [3] best (CV)/min	Occurrence in study area [4]		
					Open ocean	Large marine ecosystems	Bays, rivers, and estuaries
Family Kogiidae (sperm whales)							
Pygmy sperm whale	Kogia breviceps ...	Strategic	Western North Atlantic.	395 (0.4)/285 [7]	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
			Gulf of Mexico Oceanic.	453(0.35)/340 [7]	.....	Gulf of Mexico, Caribbean Sea.	
Dwarf sperm whale	Kogia sima	.....	Western North Atlantic.	395 (0.4)/285 [7]	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf.	
			Gulf of Mexico Oceanic.	453(0.35)/340 [7]	.....	Gulf of Mexico, Caribbean Sea.	
Family Monodontidae (beluga whale and narwhal)							
Beluga whale	Delphinapterus leucas.	.....	NA8	NA [8]	.....	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Narwhal	Monodon monoceros.	.....	NA9	NA [9]	.....	Newfoundland-Labrador Shelf, West Greenland Shelf.	
Family Ziphiidae (beaked whales)							
Cuvier's beaked whale.	Ziphius cavirostris	.....	Western North Atlantic.	3,513 (0.63)/ 2,154 [10].	Gulf Stream, North Atlantic Gyre, Labrador Current.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
			Gulf of Mexico Oceanic.	65 (0.67)/39	.....	Gulf of Mexico, Caribbean Sea.	
True's beaked whale.	Mesoplodon mirus	.....	Western North Atlantic.	3,513 (0.63)/ 2,154 [10].	Gulf Stream, North Atlantic Gyre, Labrador Current.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Gervais' beaked whale.	Mesoplodon europaeus.	.....	Western North Atlantic.	3,513 (0.63)/ 2,154 [10].	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf, Northeast United States Continental Shelf.	
			Gulf of Mexico Oceanic.	57 (1.4)/24 [11]	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf.	
Sowerby's beaked whale.	Mesoplodon bidens.	.....	Western North Atlantic.	3,513 (0.63)/ 2,154 [10].	Gulf Stream, North Atlantic Gyre.	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	

TABLE 9—MARINE MAMMAL OCCURRENCE WITHIN THE AFTT STUDY AREA—Continued

Common name	Scientific name [1]	ESA/MMPA status [2]	Stock [3]	Stock abundance [3] best (CV)/min	Occurrence in study area [4]		
					Open ocean	Large marine ecosystems	Bays, rivers, and estuaries
Blainville's beaked whale.	Mesoplodon densirostris.	.....	Western North Atlantic.	3,513 (0.63)/2,154 [10].	Gulf Stream, North Atlantic Gyre, Labrador Current.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
			Gulf of Mexico Oceanic.	57 (1.4)/24 [11]	.....	Gulf of Mexico, Caribbean Sea.	
Northern bottlenose whale.	Hyperoodon ampullatus.	.....	Western North Atlantic.	Unknown	Gulf Stream, North Atlantic Gyre, Labrador Current.	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Family Delphinidae (dolphins)							
Rough-toothed dolphin.	Steno bredanensis.	.....	Western North Atlantic.	Unknown	Gulf Stream, North Atlantic Gyre.	Caribbean Sea, Southeast U.S. Continental Shelf.	
			Gulf of Mexico (Outer continental shelf and Oceanic).	Unknown	.....	Gulf of Mexico, Caribbean Sea.	
Bottlenose dolphin	Tursiops truncatus	Strategic, Depleted.	Western North Atlantic, offshore [12].	81,588 (0.17)/70,775.	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf.	
		Strategic, Depleted.	Western North Atlantic, coastal, northern migratory.	9,604 (0.36)/7,147	.....	Southeast U.S. Continental Shelf.	Island Sound, Sandy Hook Bay, Lower Chesapeake Bay, James River, Elizabeth River.
		Strategic, Depleted.	Western North Atlantic, coastal, southern migratory.	12,482 (0.32)/9,591.	.....	Southeast U.S. Continental Shelf.	Lower Chesapeake Bay, James River, Elizabeth River, Beaufort Inlet, Cape Fear River, Kings Bay, St. Johns River.
		Strategic, Depleted.	Western North Atlantic, coastal, South Carolina/Georgia.	7,738 (0.23)/6,399	.....	Southeast U.S. Continental Shelf.	Kings Bay, St. Johns River.
		Strategic, Depleted.	Western North Atlantic, coastal, Northern Florida.	3,064 (0.24)/2,511	.....	Southeast U.S. Continental Shelf.	Kings Bay, St. Johns River.
		Strategic	Western North Atlantic, coastal, Central Florida.	6,318 (0.26)/5,094	.....	Southeast U.S. Continental Shelf.	Port Canaveral.
		Strategic	Northern North Carolina Estuarine System.	Unknown	.....	Southeast U.S. Continental Shelf.	Beaufort Inlet, Cape Fear River.
		Strategic	Southern North Carolina Estuarine System.	2,454 (0.53)/1,614	.....	Southeast U.S. Continental Shelf.	Beaufort Inlet, Cape Fear River.
		Strategic	Charleston Estuarine System.	Unknown	.....	Southeast U.S. Continental Shelf.	
		Strategic	Northern Georgia/Southern South Carolina Estuarine System.	Unknown	.....	Southeast U.S. Continental Shelf.	
		Strategic	Southern Georgia Estuarine System.	Unknown	.....	Southeast U.S. Continental Shelf.	Kings Bay, St. Johns River.
		Strategic	Jacksonville Estuarine System.	Unknown	.....	Southeast U.S. Continental Shelf.	Kings Bay, St. Johns River.

TABLE 9—MARINE MAMMAL OCCURRENCE WITHIN THE AFTT STUDY AREA—Continued

Common name	Scientific name [1]	ESA/MMPA status [2]	Stock [3]	Stock abundance [3] best (CV)/min	Occurrence in study area [4]		
					Open ocean	Large marine ecosystems	Bays, rivers, and estuaries
		Strategic	Indian River Lagoon Estuarine System.	Unknown		Southeast U.S. Continental Shelf.	Port Canaveral.
		Strategic	Biscayne Bay	Unknown		Southeast U.S. Continental Shelf.	
			Florida Bay	514 (0.17)/447		Gulf of Mexico.	
			Gulf of Mexico Continental Shelf.	Unknown		Gulf of Mexico.	
			Gulf of Mexico, eastern coastal.	7,702 (0.19)/6,551		Gulf of Mexico.	
			Gulf of Mexico, northern coastal.	2,473 (0.25)/2,004		Gulf of Mexico	St. Andrew Bay, Pascagoula River.
		Strategic	Gulf of Mexico, western coastal.	Unknown		Gulf of Mexico	Corpus Christi Bay, Galveston Bay.
			Gulf of Mexico Oceanic.	3,708 (0.42)/2,641		Gulf of Mexico.	
		Strategic	Gulf of Mexico bay, sound, and estuarine.	Unknown		Gulf of Mexico	St. Andrew Bay, Pascagoula River, Sabine Lake, Corpus Christi Bay, and Galveston Bay.
Pantropical spotted dolphin.	Stenella attenuata		Western North Atlantic.	4,439 (0.49)/3,010	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf.	
			Gulf of Mexico Oceanic.	34,067 (0.18)/29,311.		Gulf of Mexico, Caribbean Sea.	
Atlantic spotted dolphin.	Stenella frontalis		Western North Atlantic.	50,978 (0.42)/36,235.	Gulf Stream	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
			Gulf of Mexico (Continental shelf and Oceanic).	Unknown		Gulf of Mexico, Caribbean Sea.	
Spinner dolphin	Stenella longirostris.		Western North Atlantic.	Unknown	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf.	
			Gulf of Mexico Oceanic.	1,989 (0.48)/1,356		Gulf of Mexico, Caribbean Sea.	
Clymene dolphin	Stenella clymene		Western North Atlantic.	Unknown	Gulf Stream	Southeast U.S. Continental Shelf.	
			Gulf of Mexico Oceanic.	6,575 (0.36)/4,901		Gulf of Mexico, Caribbean Sea.	
Striped dolphin	Stenella coeruleoalba.		Western North Atlantic.	94,462 (0.4)/68,558.	Gulf Stream.		
			Gulf of Mexico Oceanic.	3,325 (0.48)/2,266		Gulf of Mexico, Caribbean Sea.	
Fraser's dolphin	Lagenodelphis hosei.		Western North Atlantic.	Unknown	North Atlantic Gyre.	Southeast U.S. Continental Shelf.	
			Gulf of Mexico Oceanic.	Unknown		Gulf of Mexico, Caribbean Sea.	
Risso's dolphin	Grampus griseus		Western North Atlantic.	20,479 (0.59)/12,920.	Gulf Stream	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
			Gulf of Mexico Oceanic.	1,589 (0.27)/1,271		Gulf of Mexico, Caribbean Sea.	

TABLE 9—MARINE MAMMAL OCCURRENCE WITHIN THE AFTT STUDY AREA—Continued

Common name	Scientific name [1]	ESA/MMPA status [2]	Stock [3]	Stock abundance [3] best (CV)/min	Occurrence in study area [4]		
					Open ocean	Large marine ecosystems	Bays, rivers, and estuaries
Atlantic white-sided dolphin.	Lagenorhynchus acutus.	.....	Western North Atlantic.	63,368 (0.27)/50,883.	Labrador Current	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
White-beaked dolphin.	Lagenorhynchus albirostris.	.....	Western North Atlantic.	2,003 (0.94)/1,023	Labrador Current	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Long-beaked common dolphin.	Delphinus capensis.	.....	NA [13]	Unknown [13]	.....	Caribbean Sea 13.	
Short-beaked common dolphin.	Delphinus delphis	.....	Western North Atlantic.	120,743 (0.23)/99,975.	Gulf Stream	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Melon-headed whale.	Peponocephala electra.	.....	Western North Atlantic.	Unknown	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf.	
			Gulf of Mexico Oceanic.	2,283 (0.76)/1,293	.....	Gulf of Mexico, Caribbean Sea.	
Pygmy killer whale	Feresa attenuata	.....	Western North Atlantic.	Unknown	Gulf Stream, North Atlantic Gyre.	Southeast U.S. Continental Shelf.	
			Gulf of Mexico Oceanic.	323 (0.6)/203	.....	Gulf of Mexico, Caribbean Sea, Southeast U.S. Continental Shelf.	
False killer whale ..	Pseudorca crassidens.	.....	Gulf of Mexico Oceanic.	777 (0.56)/501	Gulf Stream, North Atlantic Gyre.	Gulf of Mexico, Caribbean Sea, Southeast U.S. Continental Shelf.	
Killer whale	Orcinus orca	.....	Western North Atlantic.	Unknown	Gulf Stream, North Atlantic Gyre, Labrador Current.	Southeast U.S. Continental Shelf, Northeast U.S. Continental shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
			Gulf of Mexico Oceanic.	49 (0.77)/28	.....	Gulf of Mexico, Caribbean Sea.	
Long-finned pilot whale.	Globicephala melas.	.....	Western North Atlantic.	12,619 (0.37)/9,333.	Gulf Stream	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Short-finned pilot whale.	Globicephala macrorhynchus.	.....	Western North Atlantic.	24,674 (0.45)/17,190.	Gulf Stream	Northeast U.S. Continental Shelf, Southeast U.S. Continental Shelf.	
			Gulf of Mexico Oceanic.	716 (0.34)/542	.....	Gulf of Mexico, Caribbean Sea.	

TABLE 9—MARINE MAMMAL OCCURRENCE WITHIN THE AFTT STUDY AREA—Continued

Common name	Scientific name [1]	ESA/MMPA status [2]	Stock [3]	Stock abundance [3] best (CV)/min	Occurrence in study area [4]		
					Open ocean	Large marine ecosystems	Bays, rivers, and estuaries
Family Phocoenidae (porpoises)							
Harbor porpoise	Phocoena phocoena.	.....	Gulf of Maine/Bay of Fundy.	89,054 (0.47)/ 60,970.	.....	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	Narragansett Bay, Rhode Island Sound, Block Island Sound, Buzzards Bay, Vineyard Sound, Long Island Sound, Piscataqua River, Thames River, Kennebec River.
Order Carnivora							
Suborder Pinnipedia							
Family Phocidae (true seals)							
Ringed seal	Pusa hispida	Proposed [15]	NA [14]	Unknown	.....	Newfoundland-Labrador Shelf, West Greenland Shelf.	
Bearded seal	Erignathus barbatus.	.....	NA [14]	Unknown	.....	Scotian Shelf, Newfoundland-Labrador Shelf, West Greenland Shelf.	
Hooded seal	Cystophora cristata.	.....	Western North Atlantic.	592,100/512,000	.....	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf, West Greenland Shelf.	Narragansett Bay, Rhode Island Sound, Block Island Sound, Buzzards Bay, Vineyard Sound, Long Island Sound, Piscataqua River, Thames River, Kennebec River.
Harp seal	Pagophilus groenlandicus.	.....	Western North Atlantic.	Unknown	.....	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	
Gray seal	Halichoerus grypus.	.....	Western North Atlantic.	Unknown	.....	Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	Narragansett Bay, Rhode Island Sound, Block Island Sound, Buzzards Bay, Vineyard Sound, Long Island Sound, Piscataqua River, Thames River, Kennebeck River.
Harbor seal	Phoca vitulina	.....	Western North Atlantic.	Unknown [16]	.....	Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Scotian Shelf, Newfoundland-Labrador Shelf.	Narragansett Bay, Rhode Island Sound, Block Island Sound, Buzzards Bay, Vineyard Sound, Long Island Sound, Piscataqua River, Thames River, Kennebeck River.

[1] Taxonomy follows Perrin 2009.
[2] ESA listing status. All marine mammals are protected under MMPA. Populations or stocks for which the level of direct human-caused mortality exceeds the potential biological removal level, which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the ESA within the foreseeable future, or is listed as a threatened or endangered species under the ESA, or is designated as depleted under the MMPA are considered ''strategic'' under MMPA.
[3] Best CV/Min is a statistic measurement used as an indicator of the accuracy of the estimate. Stock designations for the U.S. Exclusive Economic Zone and abundance estimates from 2010 Stock Assessment Report (Waring *et al.* 2010).
[4] Occurrence in the Study Area includes open ocean areas—Labrador Current, North Atlantic Gyre, and Gulf Stream, and coastal/shelf waters of seven Large Marine Ecosystems—Gulf of Mexico, Southeast U.S. Continental Shelf, Northeast U.S. Continental Shelf, Caribbean Sea, Scotian Shelf, Newfoundland-Labrador Shelf, West Greenland Shelf, and inland waters of—Kennebec River, Piscataqua River, Thames River, Narragansett Bay, Rhode Island Sound, Block Island Sound, Buzzards Bay, Vineyard Sound, Long Island Sound, Sandy Hook Bay, Lower Chesapeake Bay, James River, Elizabeth River, Beaufort Inlet, Cape Fear River, Kings Bay, St. Johns River, Port Canaveral, St. Andrew Bay, Pascagoula River, Sabine Lake, Corpus Christi Bay, and Galveston Bay.
[5] This species occurs in the Atlantic outside of the U.S. Exclusive Economic Zone; and therefore has no associated Stock Assessment Report. See the appropriate subsections below for details of populations that may be found within the Study Area. Abundance and 95 percent confidence interval are provided by the International Whaling Commission.
[6] Photo identification catalogue count of 440 recognizable blue whale individuals from the Gulf of St. Lawrence is considered to be a minimum population estimate for the western North Atlantic stock.
[7] Estimate may include both the pygmy and dwarf sperm whales.
[8] This species occurs in the Atlantic outside of the U.S. Exclusive Economic Zone; and therefore has no associated Stock Assessment Report. See the appropriate subsections below for details of populations that may be found within the Study Area.
[9] Narwhals in the Atlantic are not managed by NMFS and have no associated Stock Assessment Report.
[10] Estimate includes Cuvier's beaked whales and undifferentiated Mesoplodon species.
[11] Estimate includes Gervais' and Blainville's beaked whales.
[12] Estimate may include sightings of the coastal form.
[13] Long-beaked common dolphins are only known in the western Atlantic from a discrete population off the east coast of South America.
[14] This species occurs in the Atlantic outside of the U.S. Exclusive Economic Zone; and therefore has no associated Stock Assessment Report. See the appropriate subsections below for details of populations that may be found within the Study Area.
[15] Arctic sub-species of ringed seal has been proposed as threatened under the ESA (75 **Federal Register** [FR] 77476).
[16] 2010 Stock Assessment Report states that present data are insufficient to calculate a minimum population estimate for this stock, however, the 2009 Stock Assessment Report indicated the ''best'' population estimate was 99,340 (CV = .097) and minimum population estimate was 91,546.

NMFS has reviewed the information complied by the Navy on the abundance, behavior, status and distribution, and vocalizations of marine mammal species in the waters of the AFTT Study Area, which was derived from peer reviewed literature, the Navy Marine Resource Assessments, NMFS Stock Assessment Reports, and marine mammal surveys using acoustic or visual observations from aircraft or ships. NMFS considers this information to be the best available science with which we can conduct the analyses necessary to propose these regulations and future LOAs. This information may be viewed in the Navy's LOA application and the Navy's EIS for AFTT (*see* Availability). Additional information is available in the NMFS Stock Assessment Reports, which may be viewed at: *http://www.nmfs.noaa.gov/pr/sars/species.htm*.

Bowhead whales, beluga whales, and narwhal are considered rare in the AFTT Study Area. Bowhead whales inhabit only the arctic and subarctic regions, often close to the ice edge. The St. Lawrence estuary is at the southern limit of the beluga whales' distribution (Lesage and Kingsley, 1998). Beluga distribution does not include the Gulf of Mexico or the southeastern Atlantic coast and they are considered extralimital in the Northeast. Narwhals inhabit Arctic waters, but populations from the Hudson Strait and Davis Strait—at the northwest extreme of the Study Area—may extend into the AFTT Study Area, but the possibility of narwhal actually occurring is considered remote. Based on the rare occurrence of these species in the AFTT Study Area, the Navy and NMFS do not anticipate any take of bowhead whales, beluga whales, or narwhals; therefore, these species are not addressed further in this proposed rule.

Important Areas

NMFS identifies biologically important areas when considering an application to authorize the incidental take of marine mammals. The negligible impact finding necessary for the issuance of an MMPA authorization requires NMFS to consider areas where marine mammals are known to selectively breed or calve/pup. In addition, NMFS must prescribe regulations setting forth the permissible methods of taking and other means of effecting the least practicable adverse impact on marine mammals species or stocks by paying particular attention to rookeries, mating grounds, and other areas of similar significance. This section identifies and discusses known important reproductive and feeding areas within the AFTT Study Area.

Little is known about the breeding and calving behaviors of many of the marine mammals that occur within the AFTT Study Area. For rorquals (humpback whale, minke whale, Bryde's whale, sei whale, fin whale, and blue whale) and sperm whales, mating is generally thought to occur in tropical and sub-tropical waters between mid-winter and mid-summer in deep offshore waters. Delphinids (Melon-headed whale, killer whale, pygmy killer whale, false killer whale, pilot whale, common dolphin, Atlantic spotted dolphin, clymene dolphin, pantropical spotted dolphin, spinner dolphin, striped dolphin, rough-toothed dolphin, bottlenose dolphin, Risso's dolphin, Fraser's dolphin, Atlantic white-sided dolphin, white-beaked dolphin) may mate throughout their distribution during any time of year. For pinnipeds, mating and pupping typically occur in coastal waters near northeast rookeries. With one notable exception, no specific areas for breeding or calving/pupping have been identified in the AFTT Study Area for the species that occur there. However, under the Endangered Species Act (ESA), critical habitat has been designated for the North Atlantic right whale. Additional biologically important areas have been identified for humpback whales and sperm whales. Biologically important areas for all three species are discussed below.

North Atlantic Right Whale

Most North Atlantic right whale sightings follow a well-defined seasonal migratory pattern through several consistently utilized habitats (Winn *et al.,* 1986). It should be noted, however, that some individuals may be sighted in these habitats outside of the typical time of year and that migration routes are not well known (there may be a regular offshore component). The population migrates as two separate components, although some whales may remain in the feeding grounds throughout the winter (Winn *et al.,* 1986, Kenney *et al.,* 2001). Pregnant females and some juveniles migrate from the feeding grounds to the calving grounds off the southeastern United States in late fall to winter. The cow-calf pairs return northward in late winter to early spring. The majority of the right whale population leaves the feeding grounds for unknown habitats in the winter but returns to the feeding grounds coinciding with the return of the cow-calf pairs. Some individuals as well as cow-calf pairs can be seen through the fall and winter on the feeding grounds

with feeding being observed (e.g., Sardi *et al.,* 2005).

During the spring through early summer, North Atlantic right whales are found on feeding grounds off the northeastern United States and Canada. Individuals may be found in Cape Cod Bay in February through April (Winn *et al.,* 1986; Hamilton and Mayo, 1990) and in the Great South Channel east of Cape Cod in April through June (Winn *et al.,* 1986; Kenney *et al.,* 1995). Right whales are found throughout the remainder of summer and into fall (June through November) on two feeding grounds in Canadian waters (Gaskin, 1987 and 1991), with peak abundance in August, September, and early October. The majority of summer/fall sightings of mother/calf pairs occur east of Grand Manan Island (Bay of Fundy), although some pairs might move to other unknown locations (Schaeff *et al.,* 1993). Jeffreys Ledge appears to be important habitat for right whales, with extended whale residences; this area appears to be an important fall feeding area for right whales and an important nursery area during summer (Weinrich *et al.,* 2000). The second feeding area is off the southern tip of Nova Scotia in the Roseway Basin between Browns, Baccaro, and Roseway banks (Mitchell *et al.,* 1986; Gaskin, 1987; Stone *et al.,* 1988; Gaskin, 1991). The Cape Cod Bay and Great South Channel feeding grounds have been designated as critical habitat under the ESA (Silber and Clapham, 2001).

During the winter (as early as November and through March), North Atlantic right whales may be found in coastal waters off North Carolina, Georgia, and northern Florida (Winn *et al.,* 1986). The waters off Georgia and northern Florida are the only known calving ground for western North Atlantic right whales and they have been designated as critical habitat under the ESA. Calving occurs from December through March (Silber and Clapham, 2001). On 1 January 2005, the first observed birth on the calving grounds was reported (Zani *et al.,* 2005). The majority of the population is not accounted for on the calving grounds, and not all reproductively active females return to this area each year (Kraus *et al.,* 1986a).

The coastal waters of the Carolinas are suggested to be a migratory corridor for the right whale (Winn *et al.,* 1986). This area, consisting of coastal waters between North Carolina and northern Florida, was mainly a winter and early spring (January–March) right whaling ground during the late 1800s (Reeves and Mitchell, 1986). The whaling ground was centered along the coasts of South Carolina and Georgia (Reeves and Mitchell, 1986). An examination of sighting records from all sources between 1950 and 1992 found that wintering right whales were observed widely along the coast from Cape Hatteras, North Carolina, to Miami, Florida (Kraus *et al.,* 1993). Sightings off the Carolinas were comprised of single individuals that appeared to be transients (Kraus *et al.,* 1993). These observations are consistent with the hypothesis that the coastal waters of the Carolinas are part of a migratory corridor for the North Atlantic right whale (Winn *et al.,* 1986). Knowlton *et al.* (2002) analyzed sightings data collected in the mid-Atlantic from northern Georgia to southern New England and found that the majority of North Atlantic right whale sightings occurred within approximately 30 NM (56 km) from shore. Critical habitat for the north Atlantic population of the North Atlantic right whale exists in portions of the JAX and Northeast OPAREAs (Figure 4–1 of the Navy's Application). The following three areas occur in U.S. waters and were designated by NMFS as critical habitat in June 1994 (NMFS, 2005):

- Coastal Florida and Georgia (Sebastian Inlet, Florida, to the Altamaha River, Georgia),
- The Great South Channel, east of Cape Cod, and
- Cape Cod and Massachusetts Bays.

The northern critical habitat areas serve as feeding and nursery grounds, while the southern area from the mid-Georgia coast extending southward along the Florida coast serves as calving grounds. A large portion of this habitat lies within the coastal waters of the JAX OPAREA. The physical features correlated with the distribution of right whales in the southern critical habitat area provide an optimum environment for calving. For example, the bathymetry of the inner and nearshore middle shelf area minimizes the effect of strong winds and offshore waves, limiting the formation of large waves and rough water. The average temperature of critical habitat waters is cooler during the time right whales are present due to a lack of influence by the Gulf Stream and cool freshwater runoff from coastal areas. The water temperatures may provide an optimal balance between offshore waters that are too warm for nursing mothers to tolerate, yet not too cool for calves that may only have minimal fatty insulation. On the calving grounds, the reproductive females and calves are expected to be concentrated near the critical habitat in the JAX OPAREA from December through April.

Two additional biologically important habitat areas are located in Canadian waters—Grand Manan Basin and Roseway Basin. These areas were identified in Canada's final recovery strategy for the North Atlantic right whale. On October 6, 2010, NMFS published a notice announcing 90-day finding and 12-month determination on a petition to revise critical habitat for the North Atlantic right whale (75 FR 61690). NMFS found that the petition, in addition with the information readily available, presents substantial scientific information indicating that the requested revision may be warranted. NMFS determined that we would proceed with the ongoing rulemaking process for revising critical habitat for the North Atlantic right whale.

Humpback Whale

In the North Atlantic Ocean, humpbacks are found from spring through fall on feeding grounds that are located from south of New England to northern Norway (NMFS, 1991). The Gulf of Maine is one of the principal summer feeding grounds for humpback whales in the North Atlantic. The largest numbers of humpback whales are present from mid-April to mid-November. Feeding locations off the northeastern United States include Stellwagen Bank, Jeffreys Ledge, the Great South Channel, the edges and shoals of Georges Bank, Cashes Ledge, Grand Manan Banks, the banks on the Scotian Shelf, the Gulf of St. Lawrence, and the Newfoundland Grand Banks (CETAP, 1982; Whitehead, 1982; Kenney and Winn, 1986; Weinrich *et al.,* 1997). Distribution in this region has been largely correlated to prey species and abundance, although behavior and bottom topography are factors in foraging strategy (Payne *et al.,* 1986; Payne *et al.,* 1990b). Humpbacks typically return to the same feeding areas each year.

Feeding most often occurs in relatively shallow waters over the inner continental shelf and sometimes in deeper waters. Large multi-species feeding aggregations (including humpback whales) have been observed over the shelf break on the southern edge of Georges Bank (CETAP, 1982; Kenney and Winn, 1987) and in shelf break waters off the U.S. mid-Atlantic coast (Smith *et al.,* 1996).

Sperm Whale

The region of the Mississippi River Delta (Desoto Canyon) has been recognized for high densities of sperm whales and may potentially represent an important calving and nursery, or feeding area for these animals

(Townsend, 1935; Collum and Fritts, 1985; Mullin *et al.,* 1994a; Würsig *et al.,* 2000; Baumgartner *et al.,* 2001; Davis *et al.,* 2002; Mullin *et al.,* 2004; Jochens *et al.,* 2006). Sperm whales typically exhibit a strong affinity for deep waters beyond the continental shelf, though in the area of the Mississippi Delta they also occur on the outer continental shelf break.

Marine Mammal Density Estimates

A quantitative analysis of impacts on a species requires data on the abundance and distribution of the species population in the potentially impacted area. One metric for performing this type of analysis is density, which is the number of animals present per unit area. The Navy compiled existing, publically available density data for use in the quantitative acoustic impact analysis.

There is no single source of density data for every area of the world, species, and season because of the costs, resources, and effort required to provide adequate survey coverage to sufficiently estimate density. Therefore, to estimate the marine mammal densities for large areas like the AFTT Study Area, the Navy compiled data from several sources. To compile and structure the most appropriate database of marine species density data, the Navy developed a protocol to select the best available data sources based on species, area, and time (season). The resulting Geographic Information System database, called the Navy Marine Species Density Database, includes seasonal density values for every marine mammal species present within the AFTT Study Area (Navy, 2012).

The Navy Marine Species Density Database includes a compilation of the best available density data from several primary sources and published works including survey data from NMFS within the U.S. Exclusive Economic Zone.

Additional information on the density data sources and how the database was applied to the AFTT Study Area is detailed in the Navy Marine Species Density Database Technical Report (*aftteis.com/DocumentsandReferences/AFTTDocuments/SupportingTechnicalDocuments.aspx*).

Marine Mammal Hearing and Vocalizations

Cetaceans have an auditory anatomy that follows the basic mammalian pattern, with some changes to adapt to the demands of hearing underwater. The typical mammalian ear is divided into an outer ear, middle ear, and inner ear. The outer ear is separated from the inner ear by a tympanic membrane, or eardrum. In terrestrial mammals, the outer ear, eardrum, and middle ear transmit airborne sound to the inner ear, where the sound waves are propagated through the cochlear fluid. Since the impedance of water is close to that of the tissues of a cetacean, the outer ear is not required to transduce sound energy as it does when sound waves travel from air to fluid (inner ear). Sound waves traveling through the inner ear cause the basilar membrane to vibrate. Specialized cells, called hair cells, respond to the vibration and produce nerve pulses that are transmitted to the central nervous system. Acoustic energy causes the basilar membrane in the cochlea to vibrate. Sensory cells at different positions along the basilar membrane are excited by different frequencies of sound (Pickles, 1998).

Marine mammal vocalizations often extend both above and below the range of human hearing; vocalizations with frequencies lower than 20 Hz are labeled as infrasonic and those higher than 20 kHz as ultrasonic (National Research Council (NRC), 2003; Figure 4–1). Measured data on the hearing abilities of cetaceans are sparse, particularly for the larger cetaceans such as the baleen whales. The auditory thresholds of some of the smaller odontocetes have been determined in captivity. It is generally believed that cetaceans should at least be sensitive to the frequencies of their own vocalizations. Comparisons of the anatomy of cetacean inner ears and models of the structural properties and the response to vibrations of the ear's components in different species provide an indication of likely sensitivity to various sound frequencies. The ears of small toothed whales are optimized for receiving high-frequency sound, while baleen whale inner ears are best in low to infrasonic frequencies (Ketten, 1992; 1997; 1998).

Baleen whale vocalizations are composed primarily of frequencies below 1 kHz, and some contain fundamental frequencies as low as 16 Hz (Watkins *et al.,* 1987; Richardson *et al.,* 1995; Rivers, 1997; Moore *et al.,* 1998; Stafford *et al.,* 1999; Wartzok and Ketten, 1999) but can be as high as 24 kHz (humpback whale; Au *et al.,* 2006). Clark and Ellison (2004) suggested that baleen whales use low-frequency sounds not only for long-range communication, but also as a simple form of echo ranging, using echoes to navigate and orient relative to physical features of the ocean. Information on auditory function in baleen whales is extremely lacking. Sensitivity to low-frequency sound by baleen whales has been inferred from observed vocalization frequencies, observed reactions to playback of sounds, and anatomical analyses of the auditory system. Although there is apparently much variation, the source levels of most baleen whale vocalizations lie in the range of 150–190 dB re 1 µPa at 1 m. Low-frequency vocalizations made by baleen whales and their corresponding auditory anatomy suggest that they have good low-frequency hearing (Ketten, 2000), although specific data on sensitivity, frequency or intensity discrimination, or localization abilities are lacking. Marine mammals, like all mammals, have typical U-shaped audiograms that begin with relatively low sensitivity (high threshold) at some specified low frequency with increased sensitivity (low threshold) to a species specific optimum followed by a generally steep rise at higher frequencies (high threshold) (Fay, 1988).

The toothed whales produce a wide variety of sounds, which include species-specific broadband ''clicks'' with peak energy between 10 and 200 kHz, individually variable ''burst pulse'' click trains, and constant frequency or frequency-modulated (FM) whistles ranging from 4 to 16 kHz (Wartzok and Ketten, 1999). The general consensus is that the tonal vocalizations (whistles) produced by toothed whales play an important role in maintaining contact between dispersed individuals, while broadband clicks are used during echolocation (Wartzok and Ketten, 1999). Burst pulses have also been strongly implicated in communication, with some scientists suggesting that they play an important role in agonistic encounters (McCowan and Reiss, 1995), while others have proposed that they represent ''emotive'' signals in a broader sense, possibly representing graded communication signals (Herzing, 1996). Sperm whales, however, are known to produce only clicks, which are used for both communication and echolocation (Whitehead, 2003). Most of the energy of toothed whale social vocalizations is concentrated near 10 kHz, with source levels for whistles as high as 100 to 180 dB re 1 µPa at 1 m (Richardson *et al.,* 1995). No odontocete has been shown audiometrically to have acute hearing (<80 dB re 1 µPa) below 500 Hz (Southall *et al.,* 2007). Sperm whales produce clicks, which may be used to echolocate (Mullins *et al.,* 1988), with a frequency range from less than 100 Hz to 30 kHz and source levels up to 230 dB re 1 µPa 1 m or greater (Mohl *et al.,* 2000).

Brief Background on Sound

An understanding of the basic properties of underwater sound is necessary to comprehend many of the concepts and analyses presented in this document. A summary is included below.

Sound is a wave of pressure variations propagating through a medium (e.g., water). Sound measurements can be expressed in two forms: intensity and pressure. Acoustic intensity is the average rate of energy transmitted through a unit area in a specified direction and is expressed in watts per square meter (W/m^2). Acoustic intensity is rarely measured directly, but rather from ratios of pressures; the standard reference pressure for underwater sound is 1 microPascal (μPa); for airborne sound, the standard reference pressure is 20 μPa (Richardson *et al.,* 1995).

Acousticians have adopted a logarithmic scale for sound intensities, which is denoted in decibels (dB). Decibel measurements represent the ratio between a measured pressure value and a reference pressure value (in this case 1 μPa or, for airborne sound, 20 μPa.). The logarithmic nature of the scale means that each 10-dB increase is a ten-fold increase in acoustic power (and a 20-dB increase is then a 100-fold increase in power; and a 30-dB increase is a 1,000-fold increase in power). A ten-fold increase in acoustic power does not mean that the sound is perceived as being ten times louder. Humans perceive a 10-dB increase in sound level as a doubling of loudness, and a 10-dB decrease in sound level as a halving of loudness. The term ''sound pressure level'' implies a decibel measure and a reference pressure that is used as the denominator of the ratio. Throughout this document, NMFS uses 1 microPascal (denoted re: 1μPa) as a standard reference pressure unless noted otherwise.

It is important to note that decibels underwater and decibels in air are not the same and cannot be directly compared. To estimate a comparison between sound in air and underwater, because of the different densities of air and water and the different decibel standards (i.e., reference pressures) in air and water, a sound with the same intensity (i.e., power) in air and in water would be approximately 62 dB lower in air. Thus a sound that measures 160 dB (re 1μPa) underwater would have the same approximate effective level as a sound that is 98 dB (re 20 1μPa) in air.

Sound frequency is measured in cycles per second, or Hertz (abbreviated Hz), and is analogous to musical pitch; high-pitched sounds contain high frequencies and low-pitched sounds contain low frequencies. Natural sounds in the ocean span a huge range of frequencies: From earthquake noise at 5 Hz to harbor porpoise clicks at 150,000 Hz (150 kHz). These sounds are so low or so high in pitch that humans cannot even hear them; acousticians call these infrasonic (typically below 20 Hz) and ultrasonic (typically above 20,000 Hz) sounds, respectively. A single sound may be made up of many different frequencies together. Sounds made up of only a small range of frequencies are called ''narrowband,'' and sounds with a broad range of frequencies are called ''broadband''; tactical sonars are an example of a narrowband sound source and explosives are an example of a broadband sound source.

When considering the influence of various kinds of sound on the marine environment, it is necessary to understand that different kinds of marine life are sensitive to different frequencies of sound. Based on available behavioral data, audiograms derived using auditory evoked potential (AEP) techniques, anatomical modeling, and other data, Southall *et al.* (2007) designated ''functional hearing groups'' for marine mammals and estimated the lower and upper frequencies of functional hearing of the groups. Further, the frequency range in which each group's hearing is estimated as being most sensitive is represented in the flat part of the M-weighting functions (which are derived from the audiograms described above; see Figure 1 in Southall *et al.,* 2007) developed for each group. The functional groups and the associated frequencies are indicated below (though, again, animals are less sensitive to sounds at the outer edge of their functional range and most sensitive to sounds of frequencies within a smaller range somewhere in the middle of their functional hearing range):

- Low frequency cetaceans (13 species of mysticetes): functional hearing is estimated to occur between approximately 7 Hz and 30 kHz.
- Mid-frequency cetaceans (32 species of dolphins, six species of larger toothed whales, and 19 species of beaked and bottlenose whales): functional hearing is estimated to occur between approximately 150 Hz and 160 kHz.
- High frequency cetaceans (eight species of true porpoises, six species of river dolphins, *Kogia,* the franciscana, and four species of cephalorhynchids): functional hearing is estimated to occur between approximately 200 Hz and 180 kHz.
- Pinnipeds in Water: functional hearing is estimated to occur between approximately 75 Hz and 75 kHz, with the greatest sensitivity between approximately 700 Hz and 20 kHz.

The estimated hearing range for low-frequency cetaceans has been slightly extended from previous analyses (from 22 to 30 kHz). This decision is based on data from Watkins *et al.* (1986) for numerous mysticete species, Au *et al.* (2006) for humpback whales, and abstract from Frankel (2005) and a paper from Lucifredi and Stein (2007) on gray whales, and an unpublished report (Ketten and Mountain, 2009) and abstract (Tubelli *et al.,* 2012) for minke whales. As more data from additional species become available, these estimated hearing ranges may require modification.

When sound travels away (propagates) from its source, its loudness decreases as the distance traveled by the sound increases. Thus, the loudness of a sound at its source is higher than the loudness of that same sound a kilometer distant. Acousticians often refer to the loudness of a sound at its source (typically referenced to one meter from the source) as the source level and the loudness of sound elsewhere as the received level (i.e., typically the receiver). For example, a humpback whale 3 kilometers from a device that has a source level of 230 dB re 1 μPa may only be exposed to sound that is 160 dB re 1 μPa loud, depending on how the sound travels through the water (in this example, it is spherical spreading [3 dB reduction with doubling of distance]). As a result, it is important to understand the difference between source levels and received levels when discussing the loudness of sound in the ocean or its impacts on the marine environment.

As sound travels from a source, its propagation in water is influenced by various physical characteristics, including water temperature, depth, salinity, and surface and bottom properties that cause refraction, reflection, absorption, and scattering of sound waves. Oceans are not homogeneous and the contribution of each of these individual factors is extremely complex and interrelated. The physical characteristics that determine the sound's speed through the water will change with depth, season, geographic location, and with time of day (as a result, in actual sonar operations, crews will measure oceanic conditions, such as sea water temperature and depth, to calibrate models that determine the path the sonar signal will take as it travels through the ocean and how strong the

sound signal will be at a given range along a particular transmission path). As sound travels through the ocean, the intensity associated with the wavefront diminishes, or attenuates. This decrease in intensity is referred to as propagation loss, also commonly called transmission loss.

Metrics Used in This Document

This section includes a brief explanation of the two sound measurements (sound pressure level (SPL) and sound exposure level (SEL)) frequently used to describe sound levels in the discussions of acoustic effects in this document.

SPL

Sound pressure is the sound force per unit area, and is usually measured in micropascals (μPa), where 1 Pa is the pressure resulting from a force of one newton exerted over an area of one square meter. SPL is expressed as the ratio of a measured sound pressure and a reference level.

SPL (in dB) = 20 log (pressure/reference pressure)

The commonly used reference pressure level in underwater acoustics is 1 μPa, and the units for SPLs are dB re: 1 μPa. SPL is an instantaneous measurement and can be expressed as the peak, the peak-to-peak, or the root mean square (rms). Root mean square, which is the square root of the arithmetic average of the squared instantaneous pressure values, is typically used in discussions of the effects of sounds on vertebrates and all references to SPL in this document refer to the root mean square. SPL does not take the duration of a sound into account. SPL is the applicable metric used in the Behavioral Response Function (BRF), which is used to estimate behavioral harassment takes.

SEL

SEL is an energy metric that integrates the squared instantaneous sound pressure over a stated time interval. The units for SEL are dB re: 1 μPa^2 s.

SEL = SPL + 10 log(duration in seconds)

As applied to sonar and other active acoustic sources, the SEL includes both the SPL of a sonar ping and the total duration. Longer duration pings and/or pings with higher SPLs will have a higher SEL. If an animal is exposed to multiple pings, the SEL in each individual ping is summed to calculate the cumulative SEL. The cumulative SEL depends on the SPL, duration, and number of pings received. The thresholds that NMFS uses to indicate at what received level the onset of temporary threshold shift (TTS) and permanent threshold shift (PTS) in hearing are likely to occur are expressed as cumulative SEL.

Potential Effects of Specified Activities on Marine Mammals

The Navy has requested authorization for the take of marine mammals that may occur incidental to training and testing activities in the AFTT Study Area. The Navy has analyzed the potential impacts on marine mammals from impulsive and non-impulsive sound sources and vessel strikes.

Other potential impacts on marine mammals from AFTT training and testing activities were analyzed in the Navy's AFTT EIS/OEIS, in consultation with NMFS as a cooperating agency, and determined to be unlikely to result in marine mammal harassment. Therefore, the Navy has not requested authorization for take of marine mammals that might occur incidental to other components of their proposed activities. In this document, NMFS analyzes the potential effects on marine mammals from exposure to non-impulsive (sonar and other active acoustic sources) and impulsive (underwater detonations, pile driving, and air guns) stressors, and vessel strikes.

For the purpose of MMPA authorizations, NMFS' effects assessments serve four primary purposes: (1) To prescribe the permissible methods of taking (i.e., Level B Harassment (behavioral harassment), Level A Harassment (injury), or mortality, including an identification of the number and types of take that could occur by harassment or mortality) and to prescribe other means of effecting the least practicable adverse impact on such species or stock and its habitat (i.e., mitigation); (2) to determine whether the specified activity would have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity would adversely affect the species or stock through effects on annual rates of recruitment or survival); (3) to determine whether the specified activity would have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (however, there are no subsistence communities that would be affected in the AFTT Study Area, so this determination is inapplicable to the AFTT rulemaking); and (4) to prescribe requirements pertaining to monitoring and reporting.

More specifically, for activities involving non-impulsive or impulsive sources, NMFS' analysis will identify the probability of lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), behavioral disturbance (that rises to the level of harassment), and social responses (effects to social relationships) that would be classified as a take and whether such take will have a negligible impact on such species or stocks. Vessel strikes, which have the potential to result in incidental take from direct injury and/or mortality, will be discussed in more detail in the Estimated Take of Marine Mammals Section. In this section, we will focus qualitatively on the different ways that non-impulsive and impulsive sources may affect marine mammals (some of which NMFS does not classify as harassment). Then, in the Estimated Take of Marine Mammals Section, we will relate the potential effects on marine mammals from non-impulsive and impulsive sources to the MMPA definitions of Level A and Level B Harassment, along with the potential effects from vessel strikes, and attempt to quantify those effects.

Non-Impulsive Sources

Direct Physiological Effects

Based on the literature, there are two basic ways that non-impulsive sources might directly result in direct physiological effects: Noise-induced loss of hearing sensitivity (more commonly-called ''threshold shift'') and acoustically mediated bubble growth. Separately, an animal's behavioral reaction to an acoustic exposure might lead to physiological effects that might ultimately lead to injury or death, which is discussed later in the Stranding Section.

Threshold Shift (Noise-Induced Loss of Hearing)

When animals exhibit reduced hearing sensitivity (i.e., sounds must be received at a higher level for an animal to recognize them) following exposure to a sufficiently intense sound, it is referred to as a noise-induced threshold shift (TS). An animal can experience temporary threshold shift (TTS) or permanent threshold shift (PTS). TTS can last from minutes or hours to days (i.e., there is recovery), occurs in specific frequency ranges (i.e., an animal might only have a temporary loss of hearing sensitivity between the frequencies of 1 and 10 kHz)), and can be of varying amounts (for example, an animal's hearing sensitivity might be reduced by only 6 dB or reduced by 30

dB). PTS is permanent, but some recovery is possible. PTS can also occurs in a specific frequency range and amount as mentioned above for TTS.

The following physiological mechanisms are thought to play a role in inducing auditory TSs: Effects on sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output (Southall *et al.,* 2007). The amplitude, duration, frequency, temporal pattern, and energy distribution of sound exposure all affect the amount of associated TS and the frequency range in which it occurs. As amplitude and duration of sound exposure increase, so, generally, does the amount of TS, along with the recovery time. For continuous sounds, exposures of equal energy (the same SEL) will lead to approximately equal effects. For intermittent sounds, less TS will occur than from a continuous exposure with the same energy (some recovery will occur between intermittent exposures) (Kryter *et al.,* 1966; Ward, 1997). For example, one short but loud (higher SPL) sound exposure may induce the same impairment as one longer but softer sound, which in turn may cause more impairment than a series of several intermittent softer sounds with the same total energy (Ward, 1997). Additionally, though TTS is temporary, very prolonged exposure to sound strong enough to elicit TTS, or shorter-term exposure to sound levels well above the TTS threshold, can cause PTS, at least in terrestrial mammals (Kryter, 1985). Although in the case of sonar and other active acoustic sources, animals are not expected to be exposed to levels high enough or durations long enough to result in PTS.

PTS is considered auditory injury (Southall *et al.,* 2007). Irreparable damage to the inner or outer cochlear hair cells may cause PTS, however, other mechanisms are also involved, such as exceeding the elastic limits of certain tissues and membranes in the middle and inner ears and resultant changes in the chemical composition of the inner ear fluids (Southall *et al.,* 2007).

Although the published body of scientific literature contains numerous theoretical studies and discussion papers on hearing impairments that can occur with exposure to a loud sound, only a few studies provide empirical information on the levels at which noise-induced loss in hearing sensitivity occurs in nonhuman animals. For cetaceans, published data are limited to the captive bottlenose dolphin, beluga, harbor porpoise, and Yangtze finless porpoise (Finneran *et al.,* 2000, 2002b, 2003, 2005a, 2007, 2010a, 2010b; Finneran and Schlundt, 2010; Lucke et al, 2009; Mooney *et al.,* 2009a, 2009b; Popov *et al.,* 2011a, 2011b; Popov and Supin, 2012; Kastelein *et al.,* 2012a; Schlundt *et al.,* 2000; Nachtigall *et al.,* 2003, 2004). For pinnipeds in water, data are limited to measurement of TTS in harbor seals, one elephant seal, and California sea lions (Kastak *et al.,* 1999, 2005; Kastelien *et al.,* 2012b).

Marine mammal hearing plays a critical role in communication with conspecifics, and interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (i.e., recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking, below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for successful mother/calf interactions could have more serious impacts. Also, depending on the degree and frequency range, the effects of PTS on an animal could range in severity, although it is considered generally more serious because it is a permanent condition. Of note, reduced hearing sensitivity as a simple function of aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.,* 2007), so we can infer that strategies exist for coping with this condition to some degree, though likely not without cost.

Acoustically Mediated Bubble Growth

A suggested indirect cause of injury to marine mammals is rectified diffusion (Crum and Mao, 1996), the process of increasing the size of a bubble by exposing it to a sound field. The process depends on many factors, including the sound pressure level and duration. Under this hypothesis, microscopic bubbles assumed to exist in the tissues of marine mammals may experience one of three things: (1) Bubbles grow to the extent that tissue hemorrhage (injury) occurs; (2) bubbles develop to the extent that an immune response is triggered or nervous system tissue is subjected to enough localized pressure that pain or dysfunction occurs (a stress response without injury); or (3) the bubbles are cleared by the lung without negative consequence to the animal. The probability of rectified diffusion, or any other indirect tissue effect, will necessarily be based on what is known about the specific process involved. Rectified diffusion is facilitated if the environment in which the ensonified bubbles exist is supersaturated with gas. Repetitive diving by marine mammals can cause the blood and some tissues to accumulate nitrogen gas to a greater degree than is supported by the surrounding environmental pressure (Ridgway and Howard, 1979). The dive patterns of some marine mammals (for example, beaked whales) are theoretically predicted to induce greater nitrogen gas supersaturation (Houser *et al.,* 2001). If rectified diffusion were possible in marine mammals exposed to a high level of sound, conditions of tissue supersaturation could theoretically speed the rate and increase the size of bubble growth. Subsequent effects due to tissue trauma and emboli would presumably mirror those observed in humans suffering from decompression sickness (e.g., nausea, disorientation, localized pain, breathing problems, etc.).

It is unlikely that the short duration of sonar or explosion sounds would last long enough to drive bubble growth to any substantial size, if such a phenomenon occurs. However, an alternative but related hypothesis is also suggested: stable microbubbles could be destabilized by high-level sound exposures so bubble growth would occur through static diffusion of gas out of the tissues. In such a scenario, the marine mammal would need to be in a gas-supersaturated state for a long enough time for bubbles to become a problematic size. Recent research with *ex vivo* supersaturated bovine tissues suggests that for a 37 kHz signal, a sound exposure of approximately 215 dB re 1 µPa would be required before microbubbles became destabilized and grew (Crum *et al.,* 2005). Assuming spherical spreading loss and a nominal sonar source level of 235 dB re 1 µPa, a whale would need to be within 33 ft. (10 m) of the sonar dome to be exposed to such sound levels. Furthermore, tissues in the study were supersaturated by exposing them to pressures of 400 to 700 kiloPascals (kPa) for periods of hours and then releasing them to

ambient pressures. Assuming the equilibration of gases with the tissues occurred when the tissues were exposed to the high pressures, levels of supersaturation in the tissues could have been as high as 400 to 700 percent. These levels of tissue supersaturation are substantially higher than model predictions for marine mammals (Houser *et al.,* 2001). It is improbable that this mechanism would be responsible for stranding events or traumas associated with beaked whale strandings. Both the degree of supersaturation and exposure levels observed to cause microbubble destabilization are unlikely to occur, either alone or in concert.

There is considerable disagreement among scientists as to the likelihood of bubble formation in diving marine mammals (Evans and Miller, 2003; Piantadosi and Thalmann, 2004). Although it has been argued that traumas from recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Fernández *et al.,* 2005; Jepson *et al.,* 2003), nitrogen bubble formation as the cause of the traumas has not been verified. The presence of bubbles postmortem, particularly after decompression, is not necessarily indicative of bubble pathology. Prior experimental work demonstrates that the postmortem presence of bubbles following decompression in laboratory animals can occur as a result of invasive investigative procedures (Stock *et al.,* 1980). Also, variations in diving behavior or avoidance responses can possibly result in nitrogen tissue supersaturation and nitrogen off-gassing, possibly to the point of deleterious vascular bubble formation (Jepson *et al.,* 2003). The mechanism for bubble formation would be different from rectified diffusion, but the effects would be similar. Although hypothetical, the potential process is under debate in the scientific community. The hypothesis speculates that if exposure to a startling sound elicits a rapid ascent to the surface, tissue gas saturation sufficient for the evolution of nitrogen bubbles might result (Fernández *et al.,* 2005; Jepson *et al.,* 2003). In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation.

Recent modeling suggests that even unrealistically rapid rates of ascent from normal dive behaviors are unlikely to result in supersaturation to the extent that bubble formation would be expected in beaked whales (Zimmer and Tyack, 2007). Tyack *et al.* (Tyack *et al.,* 2006) suggested that emboli observed in animals exposed to mid-frequency active sonar (Fernández *et al.,* 2005; Jepson *et al.,* 2003) could stem instead from a behavioral response that involves repeated dives, shallower than the depth of lung collapse. A bottlenose dolphin was trained to repetitively dive to specific depths to elevate nitrogen saturation to the point that asymptomatic nitrogen bubble formation was predicted to occur. However, inspection of the vascular system of the dolphin via ultrasound did not demonstrate the formation of any nitrogen gas bubbles (Houser *et al.,* 2009).

More recently, modeling has suggested that the long, deep dives performed regularly by beaked whales over a lifetime could result in the saturation of long-halftime tissues (e.g. fat, bone lipid) to the point that they are supersaturated when the animals are at the surface (Hooker *et al.* 2009). Proposed adaptations for prevention of bubble formation under conditions of persistent tissue saturation have been suggested (Fahlman *et al.,* 2006; Hooker *et al.,* 2009), while the condition of supersaturation required for bubble formation has been demonstrated in bycatch animals drowned at depth and brought to the surface (Moore *et al.,* 2009). Since bubble formation is facilitated by compromised blood flow, it has been suggested that rapid stranding may lead to bubble formation in animals with supersaturated, long-halftime tissues because of the stress of stranding and the cardiovascular collapse that can accompany it (Houser *et al.,* 2009).

A fat embolic syndrome was identified by Fernández *et al.* (2005) coincident with the identification of bubble emboli in stranded beaked whales. The fat embolic syndrome was the first pathology of this type identified in marine mammals, and was thought to possibly arise from the formation of bubbles in fat bodies, which subsequently resulted in the release of fat emboli into the blood stream. Recently, Dennison *et al.* (2011) reported on investigations of dolphins stranded in 2009–2010 and, using ultrasound, identified gas bubbles in kidneys of 21 of 22 live-stranded dolphins and in the liver of two of 22. The authors postulated that stranded animals are unable to recompress by diving, and thus may retain bubbles that are otherwise re-absorbed in animals that can continue to dive. The researchers concluded that the minor bubble formation observed can be tolerated since the majority of stranded dolphins released did not re-strand. As a result, no marine mammals addressed in this analysis are given differential treatment due to the possibility for acoustically mediated bubble growth.

Acoustic Masking

Marine mammals use acoustic signals for a variety of purposes, which differ among species, but include communication between individuals, navigation, foraging, reproduction, and learning about their environment (Erbe and Farmer 2000, Tyack 2000). Masking, or auditory interference, generally occurs when sounds in the environment are louder than and of a similar frequency to, auditory signals an animal is trying to receive. Masking is a phenomenon that affects animals that are trying to receive acoustic information about their environment, including sounds from other members of their species, predators, prey, and sounds that allow them to orient in their environment. Masking these acoustic signals can disturb the behavior of individual animals, groups of animals, or entire populations.

The extent of the masking interference depends on the spectral, temporal, and spatial relationships between the signals an animal is trying to receive and the masking noise, in addition to other factors. In humans, significant masking of tonal signals occurs as a result of exposure to noise in a narrow band of similar frequencies. As the sound level increases, though, the detection of frequencies above those of the masking stimulus decreases also. This principle is expected to apply to marine mammals as well because of common biomechanical cochlear properties across taxa.

Richardson *et al.* (1995b) argued that the maximum radius of influence of an industrial noise (including broadband low frequency sound transmission) on a marine mammal is the distance from the source to the point at which the noise can barely be heard. This range is determined by either the hearing sensitivity of the animal or the background noise level present. Industrial masking is most likely to affect some species' ability to detect communication calls and natural sounds (i.e., surf noise, prey noise, etc.; Richardson *et al.,* 1995).

The echolocation calls of toothed whales are subject to masking by high frequency sound. Human data indicate low-frequency sound can mask high-frequency sounds (i.e., upward masking). Studies on captive odontocetes by Au *et al.* (1974, 1985, 1993) indicate that some species may use various processes to reduce masking effects (e.g., adjustments in echolocation

call intensity or frequency as a function of background noise conditions). There is also evidence that the directional hearing abilities of odontocetes are useful in reducing masking at the high-frequencies these cetaceans use to echolocate, but not at the low-to-moderate frequencies they use to communicate (Zaitseva *et al.,* 1980). A recent study by Nachtigall and Supin (2008) showed that false killer whales adjust their hearing to compensate for ambient sounds and the intensity of returning echolocation signals.

As mentioned previously, the functional hearing ranges of mysticetes, odontocetes, and pinnipeds underwater all encompass the frequencies of the sonar sources used in the Navy's training exercises. Additionally, almost all species, vocal repertoires span across the frequencies of these sonar sources used by the Navy. The closer the characteristics of the masking signal to the signal of interest, the more likely masking is to occur. For hull-mounted sonar, the duty cycle of the signal makes it less likely that masking will occur as a result.

Impaired Communication

In addition to making it more difficult for animals to perceive acoustic cues in their environment, anthropogenic sound presents separate challenges for animals that are vocalizing. When they vocalize, animals are aware of environmental conditions that affect the ''active space'' of their vocalizations, which is the maximum area within which their vocalizations can be detected before it drops to the level of ambient noise (Brenowitz, 2004; Brumm *et al.,* 2004; Lohr *et al.,* 2003). Animals are also aware of environment conditions that affect whether listeners can discriminate and recognize their vocalizations from other sounds, which is more important than simply detecting that a vocalization is occurring (Brenowitz, 1982; Brumm *et al.,* 2004; Dooling, 2004, Marten and Marler, 1977; Patricelli *et al.,* 2006). Most animals that vocalize have evolved with an ability to make adjustments to their vocalizations to increase the signal-to-noise ratio, active space, and recognizability/distinguishability of their vocalizations in the face of temporary changes in background noise (Brumm *et al.,* 2004; Patricelli *et al.,* 2006). Vocalizing animals can make adjustments to vocalization characteristics such as the frequency structure, amplitude, temporal structure, and temporal delivery.

Many animals will combine several of these strategies to compensate for high levels of background noise. Anthropogenic sounds that reduce the signal-to-noise ratio of animal vocalizations, increase the masked auditory thresholds of animals listening for such vocalizations, or reduce the active space of an animal's vocalizations impair communication between animals. Most animals that vocalize have evolved strategies to compensate for the effects of short-term or temporary increases in background or ambient noise on their songs or calls. Although the fitness consequences of these vocal adjustments remain unknown, like most other trade-offs animals must make, some of these strategies probably come at a cost (Patricelli *et al.,* 2006). For example, vocalizing more loudly in noisy environments may have energetic costs that decrease the net benefits of vocal adjustment and alter a bird's energy budget (Brumm, 2004; Wood and Yezerinac, 2006). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996).

Stress Responses

Classic stress responses begin when an animal's central nervous system perceives a potential threat to its homeostasis. That perception triggers stress responses regardless of whether a stimulus actually threatens the animal; the mere perception of a threat is sufficient to trigger a stress response (Moberg, 2000; Sapolsky *et al.,* 2005; Seyle, 1950). Once an animal's central nervous system perceives a threat, it mounts a biological response or defense that consists of a combination of the four general biological defense responses: Behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune response.

In the case of many stressors, an animal's first and most economical (in terms of biotic costs) response is behavioral avoidance of the potential stressor or avoidance of continued exposure to a stressor. An animal's second line of defense to stressors involves the sympathetic part of the autonomic nervous system and the classical ''fight or flight'' response which includes the cardiovascular system, the gastrointestinal system, the exocrine glands, and the adrenal medulla to produce changes in heart rate, blood pressure, and gastrointestinal activity that humans commonly associate with ''stress.'' These responses have a relatively short duration and may or may not have significant long-term effect on an animal's welfare.

An animal's third line of defense to stressors involves its neuroendocrine or sympathetic nervous systems; the system that has received the most study has been the hypothalmus-pituitary-adrenal system (also known as the HPA axis in mammals or the hypothalamus-pituitary-interrenal axis in fish and some reptiles). Unlike stress responses associated with the autonomic nervous system, virtually all neuro-endocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction (Moberg, 1987; Rivier, 1995) and altered metabolism (Elasser *et al.,* 2000), reduced immune competence (Blecha, 2000) and behavioral disturbance. Increases in the circulation of glucocorticosteroids (cortisol, corticosterone, and aldosterone in marine mammals; see Romano *et al.,* 2004) have been equated with stress for many years.

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and distress is the biotic cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose a risk to the animal's welfare. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other biotic function, which impairs those functions that experience the diversion. For example, when mounting a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When mounting a stress response diverts energy from a fetus, an animal's reproductive success and its fitness will suffer. In these cases, the animals will have entered a pre-pathological or pathological state which is called ''distress'' (sensu Seyle 1950) or ''allostatic loading'' (sensu McEwen and Wingfield, 2003). This pathological state will last until the animal replenishes its biotic reserves sufficient to restore normal function. Note that these examples involved a long-term (days or weeks) stress response exposure to stimuli.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses have also been documented fairly well through controlled experiment; because this physiology exists in every vertebrate that has been studied, it is not surprising that stress responses and their costs have been

documented in both laboratory and free-living animals (for examples see, Holberton *et al.,* 1996; Hood *et al.,* 1998; Jessop *et al.,* 2003; Krausman *et al.,* 2004; Lankford *et al.,* 2005; Reneerkens *et al.,* 2002; Thompson and Hamer, 2000). Information has also been collected on the physiological responses of marine mammals to exposure to anthropogenic sounds (Fair and Becker, 2000; Romano *et al.,* 2002; Wright *et al.,* 2008). For example, Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales. In a conceptual model developed by the Population Consequences of Acoustic Disturbance (PCAD) working group, serum hormones were identified as possible indicators of behavioral effects that translated into altered rates of reproduction and mortality. The Office of Naval Research hosted a workshop (Effects of Stress on Marine Mammals Exposed to Sound) in 2009 that focused on this very topic (ONR, 2009).

Studies of other marine animals and terrestrial animals would lead us to expect some marine mammals to experience physiological stress responses and, perhaps, physiological responses that would be classified as ''distress'' upon exposure to high frequency, mid-frequency and low-frequency sounds. For example, Jansen (1998) reported on the relationship between acoustic exposures and physiological responses that are indicative of stress responses in humans (for example, elevated respiration and increased heart rates). Jones (1998) reported on reductions in human performance when faced with acute, repetitive exposures to acoustic disturbance. Trimper *et al.* (1998) reported on the physiological stress responses of osprey to low-level aircraft noise while Krausman *et al.* (2004) reported on the auditory and physiology stress responses of endangered Sonoran pronghorn to military overflights. Smith *et al.* (2004a, 2004b) identified noise-induced physiological transient stress responses in hearing-specialist fish (i.e., goldfish) that accompanied short- and long-term hearing losses. Welch and Welch (1970) reported physiological and behavioral stress responses that accompanied damage to the inner ears of fish and several mammals.

Hearing is one of the primary senses marine mammals use to gather information about their environment and to communicate with conspecifics. Although empirical information on the relationship between sensory impairment (TTS, PTS, and acoustic masking) on marine mammals remains limited, it seems reasonable to assume that reducing an animal's ability to gather information about its environment and to communicate with other members of its species would be stressful for animals that use hearing as their primary sensory mechanism. Therefore, we assume that acoustic exposures sufficient to trigger onset PTS or TTS would be accompanied by physiological stress responses because terrestrial animals exhibit those responses under similar conditions (NRC, 2003). More importantly, marine mammals might experience stress responses at received levels lower than those necessary to trigger onset TTS. Based on empirical studies of the time required to recover from stress responses (Moberg, 2000), we also assume that stress responses are likely to persist beyond the time interval required for animals to recover from TTS and might result in pathological and pre-pathological states that would be as significant as behavioral responses to TTS.

Behavioral Disturbance

Behavioral responses to sound are highly variable and context-specific. Many different variables can influence an animal's perception of and response to (nature and magnitude) an acoustic event. An animal's prior experience with a sound or sound source effects whether it is less likely (habituation) or more likely (sensitization) to respond to certain sounds in the future (animals can also be innately pre-disposed to respond to certain sounds in certain ways) (Southall *et al.,* 2007). Related to the sound itself, the perceived nearness of the sound, bearing of the sound (approaching vs. retreating), similarity of a sound to biologically relevant sounds in the animal's environment (i.e., calls of predators, prey, or conspecifics), and familiarity of the sound may affect the way an animal responds to the sound (Southall *et al.,* 2007). Individuals (of different age, gender, reproductive status, etc.) among most populations will have variable hearing capabilities, and differing behavioral sensitivities to sounds that will be affected by prior conditioning, experience, and current activities of those individuals. Often, specific acoustic features of the sound and contextual variables (i.e., proximity, duration, or recurrence of the sound or the current behavior that the marine mammal is engaged in or its prior experience), as well as entirely separate factors such as the physical presence of a nearby vessel, may be more relevant to the animal's response than the received level alone.

Exposure of marine mammals to sound sources can result in no response or responses including, but not limited to increased alertness; orientation or attraction to a sound source; vocal modifications; cessation of feeding; cessation of social interaction; alteration of movement or diving behavior; habitat abandonment (temporary or permanent); and, in severe cases, panic, flight, stampede, or stranding, potentially resulting in death (Southall *et al.,* 2007). A review of marine mammal responses to anthropogenic sound was first conducted by Richardson and others in 1995. A review by Nowacek *et al.* (2007) addresses studies conducted since 1995 and focuses on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated. The following sub-sections provide examples of behavioral responses that provide an idea of the variability in behavioral responses that would be expected given the differential sensitivities of marine mammal species to sound and the wide range of potential acoustic sources to which a marine mammal may be exposed.

Flight Response—A flight response is a dramatic change in normal movement to a directed and rapid movement away from the perceived location of a sound source. Relatively little information on flight responses of marine mammals to anthropogenic signals exist, although observations of flight responses to the presence of predators have occurred (Connor and Heithaus, 1996). Flight responses have been speculated as being a component of marine mammal strandings associated with sonar activities (Evans and England, 2001).

Response to Predator—Evidence suggests that at least some marine mammals have the ability to acoustically identify potential predators. For example, harbor seals that reside in the coastal waters off British Columbia are frequently targeted by certain groups of killer whales, but not others. The seals discriminate between the calls of threatening and non-threatening killer whales (Deecke *et al.,* 2002), a capability that should increase survivorship while reducing the energy required for attending to and responding to all killer whale calls. The occurrence of masking or hearing impairment provides a means by which marine mammals may be prevented from responding to the acoustic cues produced by their predators. Whether or not this is a possibility depends on the duration of the masking/hearing impairment and the likelihood of encountering a predator during the time that predator cues are impeded.

Diving—Changes in dive behavior can vary widely. They may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive. Variations in dive behavior may reflect interruptions in biologically significant activities (e.g., foraging) or they may be of little biological significance. Variations in dive behavior may also expose an animal to potentially harmful conditions (e.g., increasing the chance of ship-strike) or may serve as an avoidance response that enhances survivorship. The impact of a variation in diving resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure and the type and magnitude of the response.

Nowacek *et al.* (2004) reported disruptions of dive behaviors in foraging North Atlantic right whales when exposed to an alerting stimulus, an action, they noted, that could lead to an increased likelihood of ship strike. However, the whales did not respond to playbacks of either right whale social sounds or vessel noise, highlighting the importance of the sound characteristics in producing a behavioral reaction. Conversely, Indo-Pacific humpback dolphins have been observed to dive for longer periods of time in areas where vessels were present and/or approaching (Ng and Leung, 2003). In both of these studies, the influence of the sound exposure cannot be decoupled from the physical presence of a surface vessel, thus complicating intepretations of the relative contribution of each stimulus to the response. Indeed, the presence of surface vessels, their approach and speed of approach, seemed to be significant factors in the response of the Indo-Pacific humpback dolphins (Ng and Leung, 2003). Low frequency signals of the Acoustic Thermometry of Ocean Climate (ATOC) sound source were not found to affect dive times of humpback whales in Hawaiian waters (Frankel and Clark, 2000) or to overtly affect elephant seal dives (Costa *et al.,* 2003). They did, however, produce subtle effects that varied in direction and degree among the individual seals, illustrating the equivocal nature of behavioral effects and consequent difficulty in defining and predicting them.

Due to past incidents of beaked whale strandings associated with sonar operations, feedback paths are provided between avoidance and diving and indirect tissue effects. This feedback accounts for the hypothesis that variations in diving behavior and/or avoidance responses can possibly result in nitrogen tissue supersaturation and nitrogen off-gassing, possibly to the point of deleterious vascular bubble formation (Jepson *et al.,* 2003). Although hypothetical, discussions surrounding this potential process are controversial.

Foraging—Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (e.g., bubble nets or sediment plumes), or changes in dive behavior. Noise from seismic surveys was not found to impact the feeding behavior in western grey whales off the coast of Russia (Yazvenko *et al.,* 2007) and sperm whales engaged in foraging dives did not abandon dives when exposed to distant signatures of seismic airguns (Madsen *et al.,* 2006). Balaenopterid whales exposed to moderate low-frequency signals similar to the ATOC sound source demonstrated no variation in foraging activity (Croll *et al.,* 2001), whereas five out of six North Atlantic right whales exposed to an acoustic alarm interrupted their foraging dives (Nowacek *et al.,* 2004). Although the received sound pressure level at the animals was similar in the latter two studies, the frequency, duration, and temporal pattern of signal presentation were different. These factors, as well as differences in species sensitivity, are likely contributing factors to the differential response. A determination of whether foraging disruptions incur fitness consequences will require information on or estimates of the energetic requirements of the individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Breathing—Variations in respiration naturally vary with different behaviors and variations in respiration rate as a function of acoustic exposure can be expected to co-occur with other behavioral reactions, such as a flight response or an alteration in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Mean exhalation rates of gray whales at rest and while diving were found to be unaffected by seismic surveys conducted adjacent to the whale feeding grounds (Gailey *et al.,* 2007). Studies with captive harbor porpoises showed increased respiration rates upon introduction of acoustic alarms (Kastelein *et al.,* 2001; Kastelein *et al.,* 2006a) and emissions for underwater data transmission (Kastelein *et al.,* 2005). However, exposure of the same acoustic alarm to a striped dolphin under the same conditions did not elicit a response (Kastelein *et al.,* 2006a), again highlighting the importance in understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure.

Social relationships—Social interactions between mammals can be affected by noise via the disruption of communication signals or by the displacement of individuals. Disruption of social relationships therefore depends on the disruption of other behaviors (e.g., caused avoidance, masking, etc.) and no specific overview is provided here. However, social disruptions must be considered in context of the relationships that are affected. Long-term disruptions of mother/calf pairs or mating displays have the potential to affect the growth and survival or reproductive effort/success of individuals, respectively.

Vocalizations (also see Masking Section)—Vocal changes in response to anthropogenic noise can occur across the repertoire of sound production modes used by marine mammals, such as whistling, echolocation click production, calling, and singing. Changes may result in response to a need to compete with an increase in background noise or may reflect an increased vigilance or startle response. For example, in the presence of low-frequency active sonar, humpback whales have been observed to increase the length of their ''songs'' (Miller *et al.,* 2000; Fristrup *et al.,* 2003), possibly due to the overlap in frequencies between the whale song and the low-frequency active sonar. A similar compensatory effect for the presence of low frequency vessel noise has been suggested for right whales; right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.,* 2007). Killer whales off the northwestern coast of the United States have been observed to increase the duration of primary calls once a threshold in observing vessel density (e.g., whale watching) was reached, which has been suggested as a response to increased masking noise produced by the vessels (Foote *et al.,* 2004). In contrast, both sperm and pilot whales potentially ceased sound production during the Heard Island feasibility test (Bowles *et al.,* 1994), although it cannot be absolutely determined whether the inability to acoustically detect the animals was due to the cessation of sound production or

the displacement of animals from the area.

Avoidance—Avoidance is the displacement of an individual from an area as a result of the presence of a sound. Richardson *et al.,* (1995) noted that avoidance reactions are the most obvious manifestations of disturbance in marine mammals. It is qualitatively different from the flight response, but also differs in the magnitude of the response (i.e., directed movement, rate of travel, etc.). Oftentimes avoidance is temporary, and animals return to the area once the noise has ceased. Longer term displacement is possible, however, which can lead to changes in abundance or distribution patterns of the species in the affected region if they do not become acclimated to the presence of the sound (Blackwell *et al.,* 2004; Bejder *et al.,* 2006; Teilmann *et al.,* 2006). Acute avoidance responses have been observed in captive porpoises and pinnipeds exposed to a number of different sound sources (Kastelein *et al.,* 2001; Finneran *et al.,* 2003; Kastelein *et al.,* 2006a; Kastelein *et al.,* 2006b). Short term avoidance of seismic surveys, low frequency emissions, and acoustic deterrants has also been noted in wild populations of odontocetes (Bowles *et al.,* 1994; Goold, 1996; 1998; Stone *et al.,* 2000; Morton and Symonds, 2002) and to some extent in mysticetes (Gailey *et al.,* 2007), while longer term or repetitive/chronic displacement for some dolphin groups and for manatees has been suggested to be due to the presence of chronic vessel noise (Haviland-Howell *et al.,* 2007; Miksis-Olds *et al.,* 2007).

Maybaum (1993) conducted sound playback experiments to assess the effects of MFAS on humpback whales in Hawaiian waters. Specifically, she exposed focal pods to sounds of a 3.3-kHz sonar pulse, a sonar frequency sweep from 3.1 to 3.6 kHz, and a control (blank) tape while monitoring behavior, movement, and underwater vocalizations. The two types of sonar signals (which both contained mid- and low-frequency components) differed in their effects on the humpback whales, but both resulted in avoidance behavior. The whales responded to the pulse by increasing their distance from the sound source and responded to the frequency sweep by increasing their swimming speeds and track linearity. In the Caribbean, sperm whales avoided exposure to mid-frequency submarine sonar pulses, in the range of 1000 Hz to 10,000 Hz (IWC 2005).

Kvadsheim *et al.,* (2007) conducted a controlled exposure experiment in which killer whales fitted with D-tags were exposed to mid-frequency active sonar (Source A: a 1.0 second upsweep 209 dB @ 1–2 kHz every 10 seconds for 10 minutes; Source B: with a 1.0 second upsweep 197 dB @ 6–7 kHz every 10 seconds for 10 minutes). When exposed to Source A, a tagged whale and the group it was traveling with did not appear to avoid the source. When exposed to Source B, the tagged whales along with other whales that had been carousel feeding, ceased feeding during the approach of the sonar and moved rapidly away from the source. When exposed to Source B, Kvadsheim and his co-workers reported that a tagged killer whale seemed to try to avoid further exposure to the sound field by the following behaviors: Immediately swimming away (horizontally) from the source of the sound; engaging in a series of erratic and frequently deep dives that seemed to take it below the sound field; or swimming away while engaged in a series of erratic and frequently deep dives. Although the sample sizes in this study are too small to support statistical analysis, the behavioral responses of the orcas were consistent with the results of other studies.

In 2007, the first in a series of behavioral response studies conducted by NMFS and other scientists showed one beaked whale (*Mesoplodon densirostris*) responding to an MFAS playback. The BRS–07 cruise report indicates that the playback began when the tagged beaked whale was vocalizing at depth (at the deepest part of a typical feeding dive), following a previous control with no sound exposure. The whale appeared to stop clicking significantly earlier than usual, when exposed to mid-frequency signals in the 130–140 dB (rms) received level range. After a few more minutes of the playback, when the received level reached a maximum of 140–150 dB, the whale ascended on the slow side of normal ascent rates with a longer than normal ascent, at which point the exposure was terminated. The results are from a single experiment and that a greater sample size is needed before robust and definitive conclusions can be drawn.

Studies on the Atlantic Undersea Test and Evaluation Center instrumented range in the Bahamas have shown that some Blainville's beaked whales may be resident during all or part of the year in the area, and that individuals may move off of the range for several days during and following a sonar event. However, animals are thought to continue feeding at short distances (a few kilometers) from the range out of the louder sound fields (less than 157 dB re 1 μPa) (McCarthy *et al.,* 2011; Tyack *et al.,* 2011). With these studies, there are now statistically strong data suggesting that beaked whales tend to avoid both actual naval mid-frequency sonar in real anti-submarine training scenarios as well as sonar-like signals and other signals used during controlled sound exposure studies in the same area.

Results from a 2007–2008 study conducted near the Bahamas showed a change in diving behavior of an adult Blainville's beaked whale to playback of mid-frequency source and predator sounds (Boyd *et al.,* 2008; Tyack *et al.,* 2011). Reaction to mid-frequency sounds included premature cessation of clicking and termination of a foraging dive, and a slower ascent rate to the surface. Preliminary results from a similar behavioral response study in southern California waters have been presented for the 2010–2011 field season (Southall *et al.* 2011). Cuvier's beaked whale responses suggested particular sensitivity to sound exposure as consistent with results for Blainville's beaked whale. Similarly, beaked whales exposed to sonar during British training exercises stopped foraging (DSTL 2007), and preliminary results of controlled playback of sonar may indicate feeding/foraging disruption of killer whales and sperm whales (Miller *et al.* 2011).

Orientation—A shift in an animal's resting state or an attentional change via an orienting response represent behaviors that would be considered mild disruptions if occurring alone. As previously mentioned, the responses may co-occur with other behaviors; for instance, an animal may initially orient toward a sound source, and then move away from it. Thus, any orienting response should be considered in context of other reactions that may occur.

There are few empirical studies of avoidance responses of free-living cetaceans to mid-frequency sonars. Much more information is available on the avoidance responses of free-living cetaceans to other acoustic sources, such as seismic airguns and low frequency tactical sonar, than mid-frequency active sonar.

Behavioral Responses (Southall et al. (2007))

Southall *et al.,* (2007) reports the results of the efforts of a panel of experts in acoustic research from behavioral, physiological, and physical disciplines that convened and reviewed the available literature on marine mammal hearing and physiological and behavioral responses to human-made sound with the goal of proposing exposure criteria for certain effects. This peer-reviewed compilation of literature is very valuable, though Southall *et al.*

(2007) note that not all data are equal, some have poor statistical power, insufficient controls, and/or limited information on received levels, background noise, and other potentially important contextual variables—such data were reviewed and sometimes used for qualitative illustration but were not included in the quantitative analysis for the criteria recommendations. All of the studies considered, however, contain an estimate of the received sound level when the animal exhibited the indicated response.

In the Southall *et al.,* (2007) publication, for the purposes of analyzing responses of marine mammals to anthropogenic sound and developing critieria, the authors differentiate between single pulse sounds, multiple pulse sounds, and non-pulse sounds. Sonar and other active acoustic sources are considered a non-pulse sound. Southall *et al.,* (2007) summarize the studies associated with low-frequency, mid-frequency, and high-frequency cetacean and pinniped responses to non-pulse sounds, based strictly on received level, in Appendix C of their article (incorporated by reference and summarized in the three paragraphs below).

The studies that address responses of low frequency cetaceans to non-pulse sounds include data gathered in the field and related to several types of sound sources (of varying similarity to sonar and other active acoustic sources) including: vessel noise, drilling and machinery playback, low-frequency M-sequences (sine wave with multiple phase reversals) playback, tactical low-frequency active sonar playback, drill ships, Acoustic Thermometry of Ocean Climate (ATOC) source, and non-pulse playbacks. These studies generally indicate no (or very limited) responses to received levels in the 90 to 120 dB re: 1 μPa range and an increasing likelihood of avoidance and other behavioral effects in the 120 to 160 dB range. As mentioned earlier, though, contextual variables play a very important role in the reported responses and the severity of effects are not linear when compared to received level. Also, few of the laboratory or field datasets had common conditions, behavioral contexts or sound sources, so it is not surprising that responses differ.

The studies that address responses of mid-frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to sonar and other active acoustic sources) including: pingers, drilling playbacks, ship and ice-breaking noise, vessel noise, Acoustic Harassment Devices (AHDs), Acoustic Deterrent Devices (ADDs), MFAS, and non-pulse bands and tones. Southall *et al.* (2007) were unable to come to a clear conclusion regarding the results of these studies. In some cases, animals in the field showed significant responses to received levels between 90 and 120 dB, while in other cases these responses were not seen in the 120 to 150 dB range. The disparity in results was likely due to contextual variation and the differences between the results in the field and laboratory data (animals typically responded at lower levels in the field).

The studies that address responses of high frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to sonar and other active acoustic sources) including: pingers, AHDs, and various laboratory non-pulse sounds. All of these data were collected from harbor porpoises. Southall *et al.* (2007) concluded that the existing data indicate that harbor porpoises are likely sensitive to a wide range of anthropogenic sounds at low received levels (~90–120 dB), at least for initial exposures. All recorded exposures above 140 dB induced profound and sustained avoidance behavior in wild harbor porpoises (Southall *et al.,* 2007). Rapid habituation was noted in some but not all studies. There is no data to indicate whether other high frequency cetaceans are as sensitive to anthropogenic sound as harbor porpoises are.

The studies that address the responses of pinnipeds in water to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to sonar and other active acoustic sources) including: AHDs, ATOC, various non-pulse sounds used in underwater data communication; underwater drilling, and construction noise. Few studies exist with enough information to include them in the analysis. The limited data suggested that exposures to non-pulse sounds between 90 and 140 dB generally do not result in strong behavioral responses in pinnipeds in water, but no data exist at higher received levels.

In addition to summarizing the available data, the authors of Southall *et al.* (2007) developed a severity scaling system with the intent of ultimately being able to assign some level of biological significance to a response. Following is a summary of their scoring system, a comprehensive list of the behaviors associated with each score may be found in the report:

- 0–3 (Minor and/or brief behaviors) includes, but is not limited to: no response; minor changes in speed or locomotion (but with no avoidance); individual alert behavior; minor cessation in vocal behavior; minor changes in response to trained behaviors (in laboratory).
- 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival) includes, but is not limited to: moderate changes in speed, direction, or dive profile; brief shift in group distribution; prolonged cessation or modification of vocal behavior (duration > duration of sound), minor or moderate individual and/or group avoidance of sound; brief cessation of reproductive behavior; or refusal to initiate trained tasks (in laboratory).
- 7–9 (Behaviors considered likely to affect the aforementioned vital rates) includes, but is not limited to: extensive of prolonged aggressive behavior; moderate, prolonged or significant separation of females and dependent offspring with disruption of acoustic reunion mechanisms; long-term avoidance of an area; outright panic, stampede, stranding; threatening or attacking sound source (in laboratory).

Potential Effects of Behavioral Disturbance

The different ways that marine mammals respond to sound are sometimes indicators of the ultimate effect that exposure to a given stimulus will have on the well-being (survival, reproduction, etc.) of an animal. There is little marine mammal data quantitatively relating the exposure of marine mammals to sound to effects on reproduction or survival, though data exists for terrestrial species to which we can draw comparisons for marine mammals.

Attention is the cognitive process of selectively concentrating on one aspect of an animal's environment while ignoring other things (Posner, 1994). Because animals (including humans) have limited cognitive resources, there is a limit to how much sensory information they can process at any time. The phenomenon called ''attentional capture'' occurs when a stimulus (usually a stimulus that an animal is not concentrating on or attending to) ''captures'' an animal's attention. This shift in attention can occur consciously or unconsciously (for example, when an animal hears sounds that it associates with the approach of a predator) and the shift in attention can be sudden (Dukas, 2002; van Rij, 2007).

Once a stimulus has captured an animal's attention, the animal can respond by ignoring the stimulus, assuming a ''watch and wait'' posture, or treat the stimulus as a disturbance and respond accordingly, which includes scanning for the source of the stimulus or ''vigilance'' (Cowlishaw *et al.,* 2004).

Vigilance is normally an adaptive behavior that helps animals determine the presence or absence of predators, assess their distance from conspecifics, or to attend cues from prey (Bednekoff and Lima, 1998; Treves, 2000). Despite those benefits, however, vigilance has a cost of time: when animals focus their attention on specific environmental cues, they are not attending to other activities such as foraging. These costs have been documented best in foraging animals, where vigilance has been shown to substantially reduce feeding rates (Saino, 1994; Beauchamp and Livoreil, 1997; Fritz *et al.,* 2002).

Animals will spend more time being vigilant, which may translate to less time foraging or resting, when disturbance stimuli approach them more directly, remain at closer distances, have a greater group size (for example, multiple surface vessels), or when they co-occur with times that an animal perceives increased risk (for example, when they are giving birth or accompanied by a calf). Most of the published literature, however, suggests that direct approaches will increase the amount of time animals will dedicate to being vigilant. For example, bighorn sheep and Dall's sheep dedicated more time being vigilant, and less time resting or foraging, when aircraft made direct approaches over them (Frid, 2001; Stockwell *et al.,* 1991).

Several authors have established that long-term and intense disturbance stimuli can cause population declines by reducing the body condition of individuals that have been disturbed, followed by reduced reproductive success, reduced survival, or both (Daan *et al.,* 1996; Madsen, 1994; White, 1983). For example, Madsen (1994) reported that pink-footed geese in undisturbed habitat gained body mass and had about a 46-percent reproductive success rate compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and had a 17 percent reproductive success rate. Similar reductions in reproductive success have been reported for mule deer (Odocoileus hemionus) disturbed by all-terrain vehicles (Yarmoloy *et al.,* 1988), caribou disturbed by seismic exploration blasts (Bradshaw *et al.,* 1998), caribou disturbed by low-elevation jet fights (Luick *et al.,* 1996; Harrington and Veitch, 1992. Similarly, a study of elk that were disturbed experimentally by pedestrians concluded that the ratio of young to mothers was inversely related to disturbance rate (Phillips and Alldredge, 2000).

The primary mechanism by which increased vigilance and disturbance appear to affect the fitness of individual animals is by disrupting an animal's time budget and, as a result, reducing the time they might spend foraging and resting (which increases an animal's activity rate and energy demand). For example, a study of grizzly bears reported that bears disturbed by hikers reduced their energy intake by an average of 12 kcal/minute (50.2×10^3kJ/minute), and spent energy fleeing or acting aggressively toward hikers (White *et al.* 1999). Alternately, Ridgway *et al.* (2006) reported that increased vigilance in bottlenose dolphins exposed to sound over a 5-day period did not cause any sleep deprivation or stress effects such as changes in cortisol or epinephrine levels.

On a related note, many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hour cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.,* 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007).

In response to the National Research Council of the National Academies (2005) review, the Office of Naval Research founded a working group to formalize the Population Consequences of Acoustic Disturbance (PCAD) framework. The PCAD model connects observable data through a series of transfer functions using a case study approach. The long-term goal is to improve the understanding of how effects of sound on marine mammals transfer between behavior and life functions and between life functions and vital rates of individuals. Then, this understanding of how disturbance can affect the vital rates of individuals will facilitate the further assessment of the population level effects of anthropogenic sound on marine mammals by providing a quantitative approach to evaluate effects and the relationship between takes and possible changes to adult survival and/or annual recruitment.

Stranding and Mortality

When a live or dead marine mammal swims or floats onto shore and becomes ''beached'' or incapable of returning to sea, the event is termed a ''stranding'' (Geraci *et al.,* 1999; Perrin and Geraci, 2002; Geraci and Lounsbury, 2005; NMFS, 2007). The legal definition for a stranding within the United States is that (A) ''a marine mammal is dead and is (i) on a beach or shore of the United States; or (ii) in waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is (i) on a beach or shore of the United States and is unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.'' (16 U.S.C. 1421h).

Marine mammals are known to strand for a variety of reasons, such as infectious agents, biotoxicosis, starvation, fishery interaction, ship strike, unusual oceanographic or weather events, sound exposure, or combinations of these stressors sustained concurrently or in series. However, the cause or causes of most stranding are unknown (Geraci *et al.,* 1976; Eaton, 1979, Odell *et al.,* 1980; Best, 1982). Numerous studies suggest that the physiology, behavior, habitat relationships, age, or condition of cetaceans may cause them to strand or might pre-dispose them to strand when exposed to another phenomenon. These suggestions are consistent with the conclusions of numerous other studies that have demonstrated that combinations of dissimilar stressors commonly combine to kill an animal or dramatically reduce its fitness, even though one exposure without the other does not produce the same result (Chroussos, 2000; Creel, 2005; DeVries *et al.,* 2003; Fair and Becker, 2000; Foley *et al.,* 2001; Moberg, 2000; Relyea, 2005a; 2005b, Romero, 2004; Sih *et al.,* 2004). For reference, between 2001–2009, there was an annual average of approximately 1,400 cetacean strandings and 4,300 pinniped strandings along the coasts of the continental United States and Alaska (NMFS, 2011).

Several sources have published lists of mass stranding events of cetaceans during attempts to identify relationships between those stranding events and

military sonar (Hildebrand, 2004; IWC, 2005; Taylor *et al.,* 2004). For example, based on a review of stranding records between 1960 and 1995, the International Whaling Commission (2005) identified ten mass stranding events of Cuvier's beaked whales had been reported and one mass stranding of four Baird's beaked whale. The IWC concluded that, out of eight stranding events reported from the mid-1980s to the summer of 2003, seven had been coincident with the use of tactical mid-frequency sonar, one of those seven had been associated with the use of tactical low-frequency sonar, and the remaining stranding event had been associated with the use of seismic airguns.

Most of the stranding events reviewed by the International Whaling Commission involved beaked whales. A mass stranding of Cuvier's beaked whales in the eastern Mediterranean Sea occurred in 1996 (Franzis, 1998) and mass stranding events involving Gervais' beaked whales, Blainville's beaked whales, and Cuvier's beaked whales occurred off the coast of the Canary Islands in the late 1980s (Simmonds and Lopez-Jurado, 1991). The stranding events that occurred in the Canary Islands and Kyparissiakos Gulf in the late 1990s and the Bahamas in 2000 have been the most intensively-studied mass stranding events and have been associated with naval maneuvers involving the use of tactical sonar.

Between 1960 and 2006, 48 strandings (68 percent) involved beaked whales, 3 (4 percent) involved dolphins, and 14 (20 percent) involved whale species. Cuvier's beaked whales were involved in the greatest number of these events (48 or 68 percent), followed by sperm whales (7 or 10 percent), and Blainville's and Gervais' beaked whales (4 each or 6 percent). Naval activities (not just activities conducted by the U.S. Navy) that might have involved active sonar are reported to have coincided with 9 (13 percent) or 10 (14 percent) of those stranding events. Between the mid-1980s and 2003 (the period reported by the International Whaling Commission), we identified reports of 44 mass cetacean stranding events of which at least seven were coincident with naval exercises that were using mid-frequency sonar.

Strandings Associated With Impulse Sound

During a Navy training event on March 4, 2011 at the Silver Strand Training Complex in San Diego, California, three or possibly four dolphins were killed in an explosion. During an underwater detonation training event, a pod of 100 to 150 long-beaked common dolphins were observed moving towards the 700-yd (640.1–m) exclusion zone around the explosive charge, monitored by personnel in a safety boat and participants in a dive boat. Approximately 5 minutes remained on a time-delay fuse connected to a single 8.76 lb. (3.97 kg) explosive charge (C–4 and detonation cord). Although the dive boat was placed between the pod and the explosive in an effort to guide the dolphins away from the area, that effort was unsuccessful and three long-beaked common dolphins near the explosion died. In addition to the three dolphins found dead on March 4, the remains of a fourth dolphin were discovered on March 7, 2011 near Ocean Beach, California (3 days later and approximately 11.8 mi. [19 km] from Silver Strand where the training event occurred), which might also have been related to this event. Association of the fourth stranding with the training event is uncertain because dolphins strand on a regular basis in the San Diego area. Details such as the dolphins' depth and distance from the explosive at the time of the detonation could not be estimated from the 250 yd (228.6 m) standoff point of the observers in the dive boat or the safety boat.

These dolphin mortalities are the only known occurrence of a U.S. Navy training or testing event involving impulse energy (underwater detonation) that caused mortality or injury to a marine mammal. Despite this being a rare occurrence, the Navy has reviewed training requirements, safety procedures, and possible mitigation measures and implemented changes to reduce the potential for this to occur in the future. Discussions of procedures associated with these and other training and testing events are presented in the Mitigation section.

Strandings Associated With MFAS

Over the past 16 years, there have been five stranding events coincident with military mid-frequency sonar use in which exposure to sonar is believed to have been a contributing factor: Greece (1996); the Bahamas (2000); Madeira (2000); Canary Islands (2002); and Spain (2006). Additionally, during the 2004 Rim of the Pacific (RIMPAC) exercises, between 150 and 200 usually pelagic melon-headed whales occupied the shallow waters of Hanalei Bay, Kaua'i, Hawaii for over 28 hours. NMFS determined that MFAS was a plausible, if not likely, contributing factor in what may have been a confluence of events that led to the stranding. A number of other stranding events coincident with the operation of mid-frequency sonar including the death of beaked whales or other species (minke whales, dwarf sperm whales, pilot whales) have been reported; however, the majority have not been investigated to the degree necessary to determine the cause of the stranding and only one of these stranding events, the Bahamas (2000), was associated with exercises conducted by the U.S. Navy.

Greece (1996)

Twelve Cuvier's beaked whales stranded atypically (in both time and space) along a 38.2-kilometer strand of the coast of the Kyparissiakos Gulf on May 12 and 13, 1996 (Frantzis, 1998). From May 11 through May 15, the NATO research vessel *Alliance* was conducting sonar tests with signals of 600 Hz and 3 kHz and source levels of 228 and 226 dB re: 1µPa, respectively (D'Amico and Verboom, 1998; D'Spain *et al.,* 2006). The timing and the location of the testing encompassed the time and location of the whale strandings (Frantzis, 1998).

Necropsies of eight of the animals were performed but were limited to basic external examination and sampling of stomach contents, blood, and skin. No ears or organs were collected, and no histological samples were preserved. No apparent abnormalities or wounds were found (Frantzis, 2004). Examination of photos of the animals, taken soon after their death, revealed that the eyes of at least four of the individuals were bleeding. Photos were taken soon after their death (Frantzis, 2004). Stomach contents contained the flesh of cephalopods, indicating that feeding had recently taken place (Frantzis, 1998).

All available information regarding the conditions associated with this stranding event were compiled, and many potential causes were examined including major pollution events, prominent tectonic activity, unusual physical or meteorological events, magnetic anomalies, epizootics, and conventional military activities (International Council for the Exploration of the Sea, 2005a). However, none of these potential causes coincided in time or space with the mass stranding, or could explain its characteristics (International Council for the Exploration of the Sea, 2005a). The robust condition of the animals, plus the recent stomach contents, is inconsistent with pathogenic causes (Frantzis, 2004). In addition, environmental causes can be ruled out as there were no unusual environmental circumstances or events before or during this time period and within the general proximity (Frantzis, 2004).

Because of the rarity of this mass stranding of Cuvier's beaked whales in the Kyparissiakos Gulf (first one in history), the probability for the two events (the military exercises and the strandings) to coincide in time and location, while being independent of each other, was extremely low (Frantzis, 1998). However, because full necropsies had not been conducted, and no abnormalities were noted, the cause of the strandings could not be precisely determined (Cox *et al.,* 2006). A Bioacoustics Panel convened by NATO concluded that the evidence available did not allow them to accept or reject sonar exposures as a causal agent in these stranding events. The analysis of this stranding event provided support for, but no clear evidence for, the cause-and-effect relationship of tactical sonar training activities and beaked whale strandings (Cox *et al.,* 2006).

Bahamas (2000)

NMFS and the Navy prepared a joint report addressing the multi-species stranding in the Bahamas in 2000, which took place within 24 hours of U.S. Navy ships using MFAS as they passed through the Northeast and Northwest Providence Channels on March 15–16, 2000. The ships, which operated both AN/SQS–53C and AN/SQS–56, moved through the channel while emitting sonar pings approximately every 24 seconds. Of the 17 cetaceans that stranded over a 36-hr period (Cuvier's beaked whales, Blainville's beaked whales, Minke whales, and a spotted dolphin), seven animals died on the beach (5 Cuvier's beaked whales, 1 Blainville's beaked whale, and the spotted dolphin), while the other 10 were returned to the water alive (though their ultimate fate is unknown). As discussed in the Bahamas report (DOC/DON, 2001), there is no likely association between the minke whale and spotted dolphin strandings and the operation of MFAS.

Necropsies were performed on five of the stranded beaked whales. All five necropsied beaked whales were in good body condition, showing no signs of infection, disease, ship strike, blunt trauma, or fishery related injuries, and three still had food remains in their stomachs. Auditory structural damage was discovered in four of the whales, specifically bloody effusions or hemorrhaging around the ears. Bilateral intracochlear and unilateral temporal region subarachnoid hemorrhage, with blood clots in the lateral ventricles, were found in two of the whales. Three of the whales had small hemorrhages in their acoustic fats (located along the jaw and in the melon).

A comprehensive investigation was conducted and all possible causes of the stranding event were considered, whether they seemed likely at the outset or not. Based on the way in which the strandings coincided with ongoing naval activity involving tactical MFAS use, in terms of both time and geography, the nature of the physiological effects experienced by the dead animals, and the absence of any other acoustic sources, the investigation team concluded that MFAS aboard U.S. Navy ships that were in use during the sonar exercise in question were the most plausible source of this acoustic or impulse trauma to beaked whales. This sound source was active in a complex environment that included the presence of a surface duct, unusual and steep bathymetry, a constricted channel with limited egress, intensive use of multiple, active sonar units over an extended period of time, and the presence of beaked whales that appear to be sensitive to the frequencies produced by these sonars. The investigation team concluded that the cause of this stranding event was the confluence of the Navy MFAS and these contributory factors working together, and further recommended that the Navy avoid operating MFAS in situations where these five factors would be likely to occur. This report does not conclude that all five of these factors must be present for a stranding to occur, nor that beaked whales are the only species that could potentially be affected by the confluence of the other factors. Based on this, NMFS believes that the operation of MFAS in situations where surface ducts exist, or in marine environments defined by steep bathymetry and/or constricted channels may increase the likelihood of producing a sound field with the potential to cause cetaceans (especially beaked whales) to strand, and therefore, suggests the need for increased vigilance while operating MFAS in these areas, especially when beaked whales (or potentially other deep divers) are likely present.

Madeira, Spain (2000)

From May 10–14, 2000, three Cuvier's beaked whales were found atypically stranded on two islands in the Madeira archipelago, Portugal (Cox *et al.,* 2006). A fourth animal was reported floating in the Madeiran waters by fisherman but did not come ashore (Woods Hole Oceanographic Institution, 2005). Joint NATO amphibious training peacekeeping exercises involving participants from 17 countries 80 warships, took place in Portugal during May 2–15, 2000.

The bodies of the three stranded whales were examined post mortem (Woods Hole Oceanographic Institution, 2005), though only one of the stranded whales was fresh enough (24 hours after stranding) to be necropsied (Cox *et al.,* 2006). Results from the necropsy revealed evidence of hemorrhage and congestion in the right lung and both kidneys (Cox *et al.,* 2006). There was also evidence of intercochlear and intracranial hemorrhage similar to that which was observed in the whales that stranded in the Bahamas event (Cox *et al.,* 2006). There were no signs of blunt trauma, and no major fractures (Woods Hole Oceanographic Institution, 2005). The cranial sinuses and airways were found to be clear with little or no fluid deposition, which may indicate good preservation of tissues (Woods Hole Oceanographic Institution, 2005).

Several observations on the Madeira stranded beaked whales, such as the pattern of injury to the auditory system, are the same as those observed in the Bahamas strandings. Blood in and around the eyes, kidney lesions, pleural hemorrhages, and congestion in the lungs are particularly consistent with the pathologies from the whales stranded in the Bahamas, and are consistent with stress and pressure related trauma. The similarities in pathology and stranding patterns between these two events suggest that a similar pressure event may have precipitated or contributed to the strandings at both sites (Woods Hole Oceanographic Institution, 2005).

Even though no definitive causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): exercises were conducted in areas of at least 547 fathoms (1000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 fathoms (1000–6000 m) occurring a cross a relatively short horizontal distance (Freitas, 2004); multiple ships were operating around Madeira, though it is not known if MFA sonar was used, and the specifics of the sound sources used are unknown (Cox *et al.,* 2006, Freitas, 2004); and exercises took place in an area surrounded by landmasses separated by less than 35 nm (65 km) and at least 10 nm (19 km) in length, or in an embayment. Exercises involving multiple ships employing MFA near land may produce sound directed towards a channel or embayment that may cut off the lines of egress for marine mammals (Freitas, 2004).

Canary Islands, Spain (2002)

The southeastern area within the Canary Islands is well known for aggregations of beaked whales due to its ocean depths of greater than 547 fathoms (1,000 m) within a few hundred meters of the coastline (Fernandez *et al.,* 2005). On September 24, 2002, 14 beaked whales were found stranded on Fuerteventura and Lanzarote Islands in the Canary Islands (International Council for Exploration of the Sea, 2005a). Seven whales died, while the remaining seven live whales were returned to deeper waters (Fernandez *et al.,* 2005). Four beaked whales were found stranded dead over the next 3 days either on the coast or floating offshore. These strandings occurred within near proximity of an international naval exercise that utilized MFAS and involved numerous surface warships and several submarines. Strandings began about 4 hours after the onset of MFA sonar activity (International Council for Exploration of the Sea, 2005a; Fernandez *et al.,* 2005).

Eight Cuvier's beaked whales, one Blainville's beaked whale, and one Gervais' beaked whale were necropsied, six of them within 12 hours of stranding (Fernandez *et al.,* 2005). No pathogenic bacteria were isolated from the carcasses (Jepson *et al.,* 2003). The animals displayed severe vascular congestion and hemorrhage especially around the tissues in the jaw, ears, brain, and kidneys, displaying marked disseminated microvascular hemorrhages associated with widespread fat emboli (Jepson *et al.,* 2003; International Council for Exploration of the Sea, 2005a). Several organs contained intravascular bubbles, although definitive evidence of gas embolism in vivo is difficult to determine after death (Jepson *et al.,* 2003). The livers of the necropsied animals were the most consistently affected organ, which contained macroscopic gas-filled cavities and had variable degrees of fibrotic encapsulation. In some animals, cavitary lesions had extensively replaced the normal tissue (Jepson *et al.,* 2003). Stomachs contained a large amount of fresh and undigested contents, suggesting a rapid onset of disease and death (Fernandez *et al.,* 2005). Head and neck lymph nodes were enlarged and congested, and parasites were found in the kidneys of all animals (Fernandez *et al.,* 2005).

The association of NATO MFAS use close in space and time to the beaked whale strandings, and the similarity between this stranding event and previous beaked whale mass strandings coincident with sonar use, suggests that a similar scenario and causative mechanism of stranding may be shared between the events. Beaked whales stranded in this event demonstrated brain and auditory system injuries, hemorrhages, and congestion in multiple organs, similar to the pathological findings of the Bahamas and Madeira stranding events. In addition, the necropsy results of Canary Islands stranding event lead to the hypothesis that the presence of disseminated and widespread gas bubbles and fat emboli were indicative of nitrogen bubble formation, similar to what might be expected in decompression sickness (Jepson *et al.,* 2003; Fernández *et al.,* 2005).

Hanalei Bay (2004)

On July 3 and 4, 2004, approximately 150 to 200 melon-headed whales occupied the shallow waters of the Hanalei Bay, Kaua'i, Hawaii for over 28 hours. Attendees of a canoe blessing observed the animals entering the Bay in a single wave formation at 7 a.m. on July 3, 2004. The animals were observed moving back into the shore from the mouth of the Bay at 9 a.m. The usually pelagic animals milled in the shallow bay and were returned to deeper water with human assistance beginning at 9:30 a.m. on July 4, 2004, and were out of sight by 10:30 a.m.

Only one animal, a calf, was known to have died following this event. The animal was noted alive and alone in the Bay on the afternoon of July 4, 2004 and was found dead in the Bay the morning of July 5, 2004. A full necropsy, magnetic resonance imaging, and computerized tomography examination were performed on the calf to determine the manner and cause of death. The combination of imaging, necropsy and histological analyses found no evidence of infectious, internal traumatic, congenital, or toxic factors. Cause of death could not be definitively determined, but it is likely that maternal separation, poor nutritional condition, and dehydration contributed to the final demise of the animal. Although we do not know when the calf was separated from its mother, the animals' movement into the Bay and subsequent milling and re-grouping may have contributed to the separation or lack of nursing, especially if the maternal bond was weak or this was a primiparous calf.

Environmental factors, abiotic and biotic, were analyzed for any anomalous occurrences that would have contributed to the animals entering and remaining in Hanalei Bay. The Bay's bathymetry is similar to many other sites within the Hawaiian Island chain and dissimilar to sites that have been associated with mass strandings in other parts of the U.S. The weather conditions appeared to be normal for that time of year with no fronts or other significant features noted. There was no evidence of unusual distribution, occurrence of predator or prey species, or unusual harmful algal blooms, although Mobley *et al.,* 2007 suggested that the full moon cycle that occurred at that time may have influenced a run of squid into the Bay. Weather patterns and bathymetry that have been associated with mass strandings elsewhere were not found to occur in this instance.

The Hanalei event was spatially and temporally correlated with RIMPAC. Official sonar training and tracking exercises in the Pacific Missile Range Facility (PMRF) warning area did not commence until approximately 8 a.m. on July 3 and were thus ruled out as a possible trigger for the initial movement into the Bay. However, six naval surface vessels transiting to the operational area on July 2 intermittently transmitted active sonar (for approximately 9 hours total from 1:15 p.m. to 12:30 a.m.) as they approached from the south. The potential for these transmissions to have triggered the whales' movement into Hanalei Bay was investigated. Analyses with the information available indicated that animals to the south and east of Kaua'i could have detected active sonar transmissions on July 2, and reached Hanalei Bay on or before 7 a.m. on July 3. However, data limitations regarding the position of the whales prior to their arrival in the Bay, the magnitude of sonar exposure, behavioral responses of melon-headed whales to acoustic stimuli, and other possible relevant factors preclude a conclusive finding regarding the role of sonar in triggering this event. Propagation modeling suggest that transmissions from sonar use during the July 3 exercise in the PMRF warning area may have been detectable at the mouth of the Bay. If the animals responded negatively to these signals, it may have contributed to their continued presence in the Bay. The U.S. Navy ceased all active sonar transmissions during exercises in this range on the afternoon of July 3. Subsequent to the cessation of sonar use, the animals were herded out of the Bay.

While causation of this stranding event may never be unequivocally determined, we consider the active sonar transmissions of July 2–3, 2004, a plausible, if not likely, contributing factor in what may have been a confluence of events. This conclusion is based on the following: (1) The evidently anomalous nature of the

stranding; (2) its close spatiotemporal correlation with wide-scale, sustained use of sonar systems previously associated with stranding of deep-diving marine mammals; (3) the directed movement of two groups of transmitting vessels toward the southeast and southwest coast of Kauai; (4) the results of acoustic propagation modeling and an analysis of possible animal transit times to the Bay; and (5) the absence of any other compelling causative explanation. The initiation and persistence of this event may have resulted from an interaction of biological and physical factors. The biological factors may have included the presence of an apparently uncommon, deep-diving cetacean species (and possibly an offshore, non-resident group), social interactions among the animals before or after they entered the Bay, and/or unknown predator or prey conditions. The physical factors may have included the presence of nearby deep water, multiple vessels transiting in a directed manner while transmitting active sonar over a sustained period, the presence of surface sound ducting conditions, and/or intermittent and random human interactions while the animals were in the Bay.

A separate event involving melon-headed whales and rough-toothed dolphins took place over the same period of time in the Northern Mariana Islands (Jefferson *et al.,* 2006), which is several thousand miles from Hawaii. Some 500 to 700 melon-headed whales came into Sasanhaya Bay on July 4, 2004 near the island of Rota and then left of their own accord after 5.5 hours; no known active sonar transmissions occurred in the vicinity of that event. The Rota incident led to scientific debate regarding what, if any, relationship the event had to the simultaneous events in Hawaii and whether they might be related by some common factor (e.g., there was a full moon on July 2, 2004 as well as during other melon-headed whale strandings and nearshore aggregations (Brownell *et al.,* 2009; Lignon *et al.,* 2007; Mobley *et al.,* 2007). Brownell *et al.* (2009) compared the two incidents, along with one other stranding incident at Nuka Hiva in French Polynesia and normal resting behaviors observed at Palmyra Island, in regard to physical features in the areas, melon-headed whale behavior, and lunar cycles. Brownell *et al.,* (2009) concluded that the rapid entry of the whales into Hanalei Bay, their movement into very shallow water far from the 100-m contour, their milling behavior (typical pre-stranding behavior), and their reluctance to leave the bay constituted an unusual event that was not similar to the events that occurred at Rota (but was similar to the events at Palmyra), which appear to be similar to observations of melon-headed whales resting normally at Palmyra Island. Additionally, there was no correlation between lunar cycle and the types of behaviors observed in the Brownell *et al.* (2009) examples.

Spain (2006)

The Spanish Cetacean Society reported an atypical mass stranding of four beaked whales that occurred January 26, 2006, on the southeast coast of Spain, near Mojacar (Gulf of Vera) in the Western Mediterranean Sea. According to the report, two of the whales were discovered the evening of January 26 and were found to be still alive. Two other whales were discovered during the day on January 27, but had already died. The first three animals were located near the town of Mojacar and the fourth animal was found dead, a few kilometers north of the first three animals. From January 25–26, 2006, Standing North Atlantic Treaty Organization (NATO) Response Force Maritime Group Two (five of seven ships including one U.S. ship under NATO Operational Control) had conducted active sonar training against a Spanish submarine within 50 nm (93 km) of the stranding site.

Veterinary pathologists necropsied the two male and two female Cuvier's beaked whales. According to the pathologists, the most likely primary cause of this type of beaked whale mass stranding event was anthropogenic acoustic activities, most probably anti-submarine MFAS used during the military naval exercises. However, no positive acoustic link was established as a direct cause of the stranding. Even though no causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): Exercises were conducted in areas of at least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 fathoms (1,000–6,000 m) occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships (in this instance, five) were operating MFAS in the same area over extended periods of time (in this case, 20 hours) in close proximity; and exercises took place in an area surrounded by landmasses, or in an embayment. Exercises involving multiple ships employing MFAS near land may have produced sound directed towards a channel or embayment that may have cut off the lines of egress for the affected marine mammals (Freitas, 2004).

Association Between Mass Stranding Events and Exposure to MFAS

Several authors have noted similarities between some of these stranding incidents: They occurred in islands or archipelagoes with deep water nearby, several appeared to have been associated with acoustic waveguides like surface ducting, and the sound fields created by ships transmitting MFAS (Cox *et al.,* 2006, D'Spain *et al.,* 2006). Although Cuvier's beaked whales have been the most common species involved in these stranding events (81 percent of the total number of stranded animals), other beaked whales (including *Mesoplodon europeaus, M. densirostris,* and *Hyperoodon ampullatus*) comprise 14 percent of the total. Other species (*Stenella coeruleoalba, Kogia breviceps* and *Balaenoptera acutorostrata*) have stranded, but in much lower numbers and less consistently than beaked whales.

Based on the evidence available, however, we cannot determine whether: (a) Cuvier's beaked whale is more prone to injury from high-intensity sound than other species; (b) their behavioral responses to sound makes them more likely to strand; or (c) they are more likely to be exposed to MFAS than other cetaceans (for reasons that remain unknown). Because the association between active sonar exposures and marine mammals mass stranding events is not consistent—some marine mammals strand without being exposed to sonar and some sonar transmissions are not associated with marine mammal stranding events despite their co-occurrence—other risk factors or a groupings of risk factors probably contribute to these stranding events.

Behaviorally Mediated Responses to MFAS That May Lead to Stranding

Although the confluence of Navy MFAS with the other contributory factors noted in the report was identified as the cause of the Bahamas (2000) stranding event, the specific mechanisms that led to that stranding (or the others) are not understood, and there is uncertainty regarding the ordering of effects that led to the stranding. It is unclear whether beaked whales were directly injured by sound (acoustically mediated bubble growth, addressed above) prior to stranding or whether a behavioral response to sound occurred that ultimately caused the beaked whales to be injured and strand.

Although causal relationships between beaked whale stranding events and active sonar remain unknown, several authors have hypothesized that stranding events involving these species in the Bahamas and Canary Islands may have been triggered when the whales changed their dive behavior in a startled response to exposure to active sonar or to further avoid exposure (Cox *et al.,* 2006, Rommel *et al.,* 2006). These authors proposed three mechanisms by which the behavioral responses of beaked whales upon being exposed to active sonar might result in a stranding event. These include the following: gas bubble formation caused by excessively fast surfacing; remaining at the surface too long when tissues are supersaturated with nitrogen; or diving prematurely when extended time at the surface is necessary to eliminate excess nitrogen. More specifically, beaked whales that occur in deep waters that are in close proximity to shallow waters (for example, the ''canyon areas'' that are cited in the Bahamas stranding event; see D'Spain and D'Amico, 2006), may respond to active sonar by swimming into shallow waters to avoid further exposures and strand if they were not able to swim back to deeper waters. Second, beaked whales exposed to active sonar might alter their dive behavior. Changes in their dive behavior might cause them to remain at the surface or at depth for extended periods of time which could lead to hypoxia directly by increasing their oxygen demands or indirectly by increasing their energy expenditures (to remain at depth) and increase their oxygen demands as a result. If beaked whales are at depth when they detect a ping from an active sonar transmission and change their dive profile, this could lead to the formation of significant gas bubbles, which could damage multiple organs or interfere with normal physiological function (Cox *et al.,* 2006; Rommel *et al.,* 2006; Zimmer and Tyack, 2007). Baird *et al.* (2005) found that slow ascent rates from deep dives and long periods of time spent within 50 m of the surface were typical for both Cuvier's and Blainville's beaked whales, the two species involved in mass strandings related to naval sonar. These two behavioral mechanisms may be necessary to purge excessive dissolved nitrogen concentrated in their tissues during their frequent long dives (Baird *et al.,* 2005). Baird *et al.* (2005) further suggests that abnormally rapid ascents or premature dives in response to high-intensity sonar could indirectly result in physical harm to the beaked whales, through the mechanisms described above (gas bubble formation or non-elimination of excess nitrogen).

Because many species of marine mammals make repetitive and prolonged dives to great depths, it has long been assumed that marine mammals have evolved physiological mechanisms to protect against the effects of rapid and repeated decompressions. Although several investigators have identified physiological adaptations that may protect marine mammals against nitrogen gas supersaturation (alveolar collapse and elective circulation; Kooyman *et al.,* 1972; Ridgway and Howard, 1979), Ridgway and Howard (1979) reported that bottlenose dolphins that were trained to dive repeatedly had muscle tissues that were substantially supersaturated with nitrogen gas. Houser *et al.* (2001) used these data to model the accumulation of nitrogen gas within the muscle tissue of other marine mammal species and concluded that cetaceans that dive deep and have slow ascent or descent speeds would have tissues that are more supersaturated with nitrogen gas than other marine mammals. Based on these data, Cox *et al.* (2006) hypothesized that a critical dive sequence might make beaked whales more prone to stranding in response to acoustic exposures. The sequence began with (1) very deep (to depths as deep as 2 kilometers) and long (as long as 90 minutes) foraging dives with (2) relatively slow, controlled ascents, followed by (3) a series of ''bounce'' dives between 100 and 400 meters in depth (also see Zimmer and Tyack, 2007). They concluded that acoustic exposures that disrupted any part of this dive sequence (for example, causing beaked whales to spend more time at surface without the bounce dives that are necessary to recover from the deep dive) could produce excessive levels of nitrogen supersaturation in their tissues, leading to gas bubble and emboli formation that produces pathologies similar to decompression sickness.

Zimmer and Tyack (2007) modeled nitrogen tension and bubble growth in several tissue compartments for several hypothetical dive profiles and concluded that repetitive shallow dives (defined as a dive where depth does not exceed the depth of alveolar collapse, approximately 72 m for Ziphius), perhaps as a consequence of an extended avoidance reaction to sonar sound, could pose a risk for decompression sickness and that this risk should increase with the duration of the response. Their models also suggested that unrealistically rapid ascent rates from normal dive behaviors are unlikely to result in supersaturation to the extent that bubble formation would be expected. Tyack *et al.* (2006) suggested that emboli observed in animals exposed to mid-frequency range sonar (Jepson *et al.,* 2003; Fernandez *et al.,* 2005) could stem from a behavioral response that involves repeated dives shallower than the depth of lung collapse. Given that nitrogen gas accumulation is a passive process (i.e. nitrogen is metabolically inert), a bottlenose dolphin was trained to repetitively dive a profile predicted to elevate nitrogen saturation to the point that nitrogen bubble formation was predicted to occur. However, inspection of the vascular system of the dolphin via ultrasound did not demonstrate the formation of asymptomatic nitrogen gas bubbles (Houser *et al.,* 2007). Baird *et al.* (2008), in a beaked whale tagging study off Hawaii, showed that deep dives are equally common during day or night, but ''bounce dives'' are typically a daytime behavior, possibly associated with visual predator avoidance. This may indicate that ''bounce dives'' are associated with something other than behavioral regulation of dissolved nitrogen levels, which would be necessary day and night.

If marine mammals respond to a Navy vessel that is transmitting active sonar in the same way that they might respond to a predator, their probability of flight responses should increase when they perceive that Navy vessels are approaching them directly, because a direct approach may convey detection and intent to capture (Burger and Gochfeld, 1981, 1990; Cooper, 1997, 1998). The probability of flight responses should also increase as received levels of active sonar increase (and the ship is, therefore, closer) and as ship speeds increase (that is, as approach speeds increase). For example, the probability of flight responses in Dall's sheep (*Ovis dalli dalli*) (Frid 2001a, b), ringed seals (*Phoca hispida*) (Born *et al.,* 1999), Pacific brant (*Branta bernic nigricans*) and Canada geese (*B. Canadensis*) increased as a helicopter or fixed-wing aircraft approached groups of these animals more directly (Ward *et al.,* 1999). Bald eagles (*Haliaeetus leucocephalus*) perched on trees alongside a river were also more likely to flee from a paddle raft when their perches were closer to the river or were closer to the ground (Steidl and Anthony, 1996).

Despite the many theories involving bubble formation (both as a direct cause of injury (see Acoustically Mediated Bubble Growth Section) and an indirect cause of stranding (See Behaviorally Mediated Bubble Growth Section),

Southall *et al.,* (2007) summarizes that there is either scientific disagreement or a lack of information regarding each of the following important points: (1) Received acoustical exposure conditions for animals involved in stranding events; (2) pathological interpretation of observed lesions in stranded marine mammals; (3) acoustic exposure conditions required to induce such physical trauma directly; (4) whether noise exposure may cause behavioral reactions (such as atypical diving behavior) that secondarily cause bubble formation and tissue damage; and (5) the extent the post mortem artifacts introduced by decomposition before sampling, handling, freezing, or necropsy procedures affect interpretation of observed lesions.

During AFTT exercises there will be use of multiple sonar units in areas where six species of beaked whale species may be present. A surface duct may be present in a limited area for a limited period of time. Although most of the ASW training events will take place in the deep ocean, some will occur in areas of high bathymetric relief. However, none of the training events will take place in a location having a constricted channel with limited egress similar to the Bahamas (because none exist in the AFTT Study Area). None of the AFTT exercise areas will have a convergence of all five of the environmental factors believed to contribute to the Bahamas stranding (mid-frequency sonar, beaked whale presence, surface ducts, steep bathymetry, and constricted channels with limited egress). However, as mentioned previously, NMFS recommends caution when steep bathymetry, surface ducting conditions, or a constricted channel is present when mid-frequency tactical sonar is employed and cetaceans (especially beaked whales) are present.

Impulsive Sources

Underwater explosive detonations send a shock wave and sound energy through the water and can release gaseous by-products, create an oscillating bubble, or cause a plume of water to shoot up from the water surface. The shock wave and accompanying noise are of most concern to marine animals. Depending on the intensity of the shock wave and size, location, and depth of the animal, an animal can be injured, killed, suffer non-lethal physical effects, experience hearing related effects with or without behavioral responses, or exhibit temporary behavioral responses or tolerance from hearing the blast sound. Generally, exposures to higher levels of impulse and pressure levels would result in greater impacts on an individual animal.

Injuries resulting from a shock wave take place at boundaries between tissues of different densities. Different velocities are imparted to tissues of different densities, and this can lead to their physical disruption. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000). Gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill, 1978; Yelverton *et al.,* 1973). In addition, gas-containing organs including the nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Intestinal walls can bruise or rupture, with subsequent hemorrhage and escape of gut contents into the body cavity. Less severe gastrointestinal tract injuries include contusions, petechiae (small red or purple spots caused by bleeding in the skin), and slight hemorrhaging (Yelverton *et al.,* 1973).

Because the ears are the most sensitive to pressure, they are the organs most sensitive to injury (Ketten, 2000). Sound-related damage associated with sound energy from detonations can be theoretically distinct from injury from the shock wave, particularly farther from the explosion. If an animal is able to hear a noise, at some level it can damage its hearing by causing decreased sensitivity (Ketten, 1995). Sound-related trauma can be lethal or sublethal. Lethal impacts are those that result in immediate death or serious debilitation in or near an intense source and are not, technically, pure acoustic trauma (Ketten, 1995). Sublethal impacts include hearing loss, which is caused by exposures to perceptible sounds. Severe damage (from the shock wave) to the ears includes tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear. Moderate injury implies partial hearing loss due to tympanic membrane rupture and blood in the middle ear. Permanent hearing loss also can occur when the hair cells are damaged by one very loud event, as well as by prolonged exposure to a loud noise or chronic exposure to noise. The level of impact from blasts depends on both an animal's location and, at outer zones, on its sensitivity to the residual noise (Ketten, 1995).

There have been fewer studies addressing the behavioral effects of explosives on marine mammals compared to sonar and other active acoustic sources. However, though the nature of the sound waves emitted from an explosion are different (in shape and rise time) from sonar and other active acoustic sources, we still anticipate the same sorts of behavioral responses to result from repeated explosive detonations (a smaller range of likely less severe responses (i.e., not rising to the level of MMPA harassment) would be expected to occur as a result of exposure to a single explosive detonation that was not powerful enough or close enough to the animal to cause TTS or injury).

Vessel Strike

Commercial and Navy ship strikes of cetaceans can cause major wounds, which may lead to the death of the animal. An animal at the surface could be struck directly by a vessel, a surfacing animal could hit the bottom of a vessel, or an animal just below the surface could be cut by a vessel's propeller. The severity of injuries typically depends on the size and speed of the vessel (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Vanderlaan and Taggart, 2007).

The most vulnerable marine mammals are those that spend extended periods of time at the surface in order to restore oxygen levels within their tissues after deep dives (e.g., the sperm whale). In addition, some baleen whales, such as the North Atlantic right whale, seem generally unresponsive to vessel sound, making them more susceptible to vessel collisions (Nowacek *et al.,* 2004). These species are primarily large, slow moving whales. Smaller marine mammals (e.g., bottlenose dolphin) move quickly through the water column and are often seen riding the bow wave of large ships. Marine mammal responses to vessels may include avoidance and changes in dive pattern (NRC, 2003).

An examination of all known ship strikes from all shipping sources (civilian and military) indicates vessel speed is a principal factor in whether a vessel strike results in death (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Jensen and Silber, 2003; Vanderlaan and Taggart, 2007). In assessing records in which vessel speed was known, Laist *et al.* (2001) found a direct relationship between the occurrence of a whale strike and the speed of the vessel involved in the collision. The authors concluded that most deaths occurred when a vessel was traveling in excess of 13 knots.

Jensen and Silber (2003) detailed 292 records of known or probable ship strikes of all large whale species from 1975 to 2002. Of these, vessel speed at the time of collision was reported for 58

cases. Of these cases, 39 (or 67 percent) resulted in serious injury or death (19 of those resulted in serious injury as determined by blood in the water, propeller gashes or severed tailstock, and fractured skull, jaw, vertebrae, hemorrhaging, massive bruising or other injuries noted during necropsy and 20 resulted in death). Operating speeds of vessels that struck various species of large whales ranged from 2 to 51 knots. The majority (79 percent) of these strikes occurred at speeds of 13 knots or greater. The average speed that resulted in serious injury or death was 18.6 knots. Pace and Silber (2005) found that the probability of death or serious injury increased rapidly with increasing vessel speed. Specifically, the predicted probability of serious injury or death increased from 45 to 75 percent as vessel speed increased from 10 to 14 knots, and exceeded 90 percent at 17 knots. Higher speeds during collisions result in greater force of impact, but higher speeds also appear to increase the chance of severe injuries or death by pulling whales toward the vessel. Computer simulation modeling showed that hydrodynamic forces pulling whales toward the vessel hull increase with increasing speed (Clyne, 1999; Knowlton *et al.,* 1995).

The Jensen and Silber (2003) report notes that the database represents a minimum number of collisions, because the vast majority probably goes undetected or unreported. In contrast, Navy vessels are likely to detect any strike that does occur, and they are required to report all ship strikes involving marine mammals. Overall, the percentages of Navy traffic relative to overall reported large shipping traffic are very small (on the order of 2 percent).

Over a period of 18 years from 1995 to 2012 there have been a total of 19 Navy vessel strikes in the Study Area. Eight of the strikes resulted in a confirmed death; but in 11 of the 19 strikes, the fate of the animal was unknown. It is possible that some of the 11 reported strikes resulted in recoverable injury or were not marine mammals at all, but another large marine species (e.g., basking shark). However, it is prudent to consider that all of the strikes could have resulted in the death of a marine mammal. The maximum number of strikes in any given year was three strikes, which occurred in 2001 and 2004. The highest average number of strikes over any five year period was two strikes per year from 2001 to 2005. The average number of strikes for the entire 18-year period is 1.055 strikes per year. Since the implementation of the Navy's Marine Species Awareness Training in 2007, strikes in the Study Area have decreased to an average of 0.5 per year. Over the last five years on the east coast, the Navy was involved in two strikes, with no confirmed marine mammal deaths as a result of the vessel strike.

Mitigation

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) of the MMPA, NMFS must set forth the ''permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.'' The NDAA of 2004 amended the MMPA as it relates to military-readiness activities and the incidental take authorization process such that ''least practicable adverse impact'' shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the ''military readiness activity.'' The training and testing activities described in the AFTT application are considered military readiness activities.

NMFS reviewed the proposed activities and the proposed mitigation measures as described in the Navy's LOA application to determine if they would result in the least practicable adverse effect on marine mammals, which includes a careful balancing of the likely benefit of any particular measure to the marine mammals with the likely effect of that measure on personnel safety, practicality of implementation, and impact on the effectiveness of the ''military readiness activity.'' Included below are the mitigation measures the Navy proposed in its LOA application.

Proposed Mitigation Measures

In general, mitigation measures are modifications to the proposed activities that are implemented for the sole purpose of reducing a specific potential environmental impact on a particular resource. These do not include standard operating procedures, which are established for reasons other than environmental benefit. Most of the following proposed mitigation measures are currently implemented, and the remainder were developed where there was no mitigation for new systems. The Navy's overall approach to assessing potential mitigation measures is provided in Section 5.2.2 of the AFTT DEIS/OEIS. It may be necessary for NMFS to require additional mitigation or monitoring beyond those presented below based on information and comments received during the public comment period as well as through the consultation process required under section 7 of the ESA.

Lookouts

The use of lookouts is a critical component of Navy procedural measures and implementation of mitigation zones. Navy lookouts are highly qualified and experienced observers of the marine environment. Their duties require that they report all objects sighted in the water to the Officer of the Deck (OOD) (e.g., trash, a periscope, marine mammals, sea turtles) and all disturbances (e.g., surface disturbance, discoloration) that may be indicative of a threat to the vessel and its crew. There are personnel standing watch on station at all times (day and night) when a ship or surfaced submarine is moving through the water.

The Navy would have two types of lookouts for purposes of conducting visual observations: (1) Those positioned on surface ships, and (2) those positioned in aircraft or on boats. Lookouts positioned on surface ships would be dedicated solely to diligent observation of the air and surface of the water. They would have multiple observation objectives, which include but are not limited to detecting the presence of biological resources and recreational or fishing boats, observing mitigation zones, and monitoring for vessel and personnel safety concerns.

Due to aircraft and boat manning and space restrictions, lookouts positioned in aircraft or on boats would consist of the aircraft crew, pilot, or boat crew. Lookouts positioned in aircraft and boats may necessarily be responsible for tasks in addition to observing the air or surface of the water (for example, navigation of a helicopter or rigid hull inflatable boat). However, aircraft and boat lookouts would, to the maximum extent practicable and consistent with aircraft and boat safety and training and testing requirements, comply with the observation objectives described above for lookouts positioned on surface ships.

The Navy proposes to use at least one lookout during the training and testing activities provided in Table 10. Additional details on lookout procedures are provided in Chapter 11 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

TABLE 10—LOOKOUT MITIGATION MEASURES FOR TRAINING AND TESTING ACTIVITIES WITHIN THE AFTT STUDY AREA

Number of lookouts	Training and testing activities	Benefit
2 to 4	Mine countermeasure and neutralization activities using time delay would use 4 lookouts. If applicable, aircrew and divers would report sightings of marine mammals. Ship shock trials would have a minimum of 2–4 lookouts depending on the size of the charge.	Lookouts can visually detect marine mammals so that potentially harmful impacts from explosives use can be avoided. Trained lookouts can more quickly and effectively relay sighting information so that corrective action can be taken. Support from aircrew and divers, if they are involved, would increase the probability of sightings, reducing the potential for impacts.
1 to 2	Vessels using low-frequency active sonar or hull-mounted mid-frequency active sonar associated with ASW activities would have either one or two lookouts, depending on the size of the vessel and the status/location of the vessel.	Lookouts can visually detect marine mammals so that potentially harmful impacts from Navy sonar and explosives use can be avoided. Trained lookouts can more quickly and effectively relay sighting information so that corrective action can be taken. Support from aircrew and divers, if they are involved, would increase the probability of sightings, reducing the potential for impacts. Mine countermeasure and neutralization activities with positive control would use one or two lookouts (depending on net explosive weight), with at least one on each support vessel. If applicable, aircrew and divers would also report the presence of marine mammals. Mine neutralization activities involving diver placed charges of up to 100 lb (45 kg) net explosive weight detonation would use two lookouts. Sinking exercises would use two lookouts (one in an aircraft and one on a vessel). At sea explosives testing would have at least one lookout.
1	Surface ships and aircraft conducting ASW, ASUW, or MIW activities using high-frequency active sonar; non-hull mounted mid-frequency active sonar; helicopter dipping mid-frequency active sonar; anti-swimmer grenades; IEER sonobuoys; line charge testing; surface gunnery activities using a surface target; surface missile activities using a surface target; bombing activities; explosive torpedo testing; elevated causeway system pile driving; towed in-water devices; full power propulsion testing of surface vessels; vessel movements; and activities using non-explosive practice munitions, would have one lookout.	Lookouts can visually detect marine mammals so that potentially harmful impacts from Navy sonar; explosives; sonobuoys; gunnery rounds and missiles using a surface target; explosive torpedoes; pile driving; towed systems; surface vessel propulsion; vessel movements; and non-explosive munitions can be avoided. A trained lookout can more quickly and effectively relay sighting information so that corrective action can be taken.

Personnel standing watch on the bridge, Commanding Officers, Executive Officers, maritime patrol aircraft aircrews, anti-submarine warfare helicopter crews, civilian equivalents, and lookouts would complete the NMFS-approved Marine Species Awareness Training (MSAT) prior to standing watch or serving as a lookout. Additional details on the Navy's MSAT program are provided in Chapter 5 of the AFTT Draft EIS/OEIS.

Mitigation Zones

The Navy proposes to use mitigation zones to reduce the potential impacts on marine mammals from training and testing activities. Mitigation zones are measured as the radius from a source and represent a distance that the Navy would monitor. Mitigation zones are applied to acoustic stressors (i.e., non-impulsive and impulsive sound), and physical strike and disturbance (e.g., vessel movement and bombing exercises). In each instance, visual detections of marine mammals would be communicated immediately to a watch station for information dissemination and appropriate action. Acoustic detections would be communicated to lookouts posted in aircraft and on surface vessels.

Most of the current mitigation zones for activities that involve the use of impulsive and non-impulsive sources were originally designed to reduce the potential for onset of TTS. The Navy updated their acoustic modeling to incorporate new hearing threshold metrics (i.e., upper and lower frequency limits), new marine mammal density data, and factors such as an animal's likely presence at various depths. An explanation of the acoustic modeling process can be found in the Marine Species Modeling Team Technical Report (U.S. Department of the Navy, 2012a).

As a result of updates to the acoustic modeling, some of the ranges to effects are larger than previous model outputs. Due to the ineffectiveness associated with mitigating such large areas, the Navy is unable to mitigate for onset of TTS during every activity. However, some ranges to effects are smaller than previous models estimated, and the mitigation zones were adjusted accordingly to provide consistency across the measures. The Navy developed each proposed mitigation zone to avoid or reduce the potential for onset of the lowest level of injury, permanent threshold shift (PTS), out to the predicted maximum range (except for shock trials; a detailed discussion of how shock trial mitigation zones were developed is presented in Chapter 6.1.7.1 of the Navy's LOA application). Mitigating to the predicted maximum range to PTS also mitigates to the predicted maximum range to onset mortality (1 percent mortality), onset slight lung injury, and onset slight gastrointestinal tract injury, since the maximum range to effects for these criteria are shorter than for PTS. Furthermore, in most cases, the predicted maximum range to PTS also covers the predicted average range to

TTS. Tables 11 and 12 summarize the predicted average range to TTS, average range to PTS, maximum range to PTS, and recommended mitigation zone for each activity category, based on the Navy's acoustic propagation modeling results. It is important for the Navy to have standardized mitigation zones wherever training and testing may be conducted. The information in Tables 11 and 12 was developed in consideration of both Atlantic and Pacific Ocean conditions, marine mammal species, environmental factors, effectiveness, and operational assessments. Therefore, the ranges to effects in Tables 11 and 12 provide effective values that ensure appropriate mitigation ranges for both Atlantic Fleet and Pacific Fleet activities, and may not align with range to effects values found in other tables of the Navy's LOA application.

The Navy's proposed mitigation zones are based on the longest range for all the marine mammal and sea turtle functional hearing groups. Most mitigation zones were driven by the high-frequency cetaceans or sea turtles functional hearing group. Therefore, the mitigation zones are more conservative for the remaining functional hearing groups (low-frequency and mid-frequency cetaceans, and pinnipeds), and likely cover a larger portion of the potential range to onset of TTS. Additional information on the estimated range to effects for each acoustic stressor is detailed in Chapter 11 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

TABLE 11—PREDICTED AVERAGE RANGE TO TTS AND AVERAGE AND MAXIMUM RANGE TO PTS AND RECOMMENDED MITIGATION ZONES

Activity category	Representative source (bin) *	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone
Non-Impulsive Sound					
Low-Frequency and Hull-Mounted Mid-Frequency Active Sonar.	SQS–53 ASW hull-mounted sonar (MF1).	4,251 yd. (3,887 m) ..	281 yd. (257 m)	<292 yd. (<267 m)	6 dB power down at 1,000 yd. (914 m); 4 dB power down at 500 yd. (457 m); and shutdown at 200 yd. (183 m).
High-Frequency and Non-Hull Mounted Mid-Frequency Active Sonar.	AQS–22 ASW dipping sonar (MF4).	226 yd. (207 m)	<55 yd. (<50 m)	<55 yd. (<50 m)	200 yd. (183 m).
Explosive and Impulsive Sound					
Improved Extended Echo Ranging Sonobuoys.	Explosive sonobuoy (E4).	434 yd. (397 m)	156 yd. (143 m)	563 yd. (515 m)	600 yd. (549 m).
Explosive Sonobuoys using 0.6–2.5 lb. NEW.	Explosive sonobuoy (E3).	290 yd. (265 m)	113 yd. (103 m)	309 yd. (283 m)	350 yd. (320 m).
Anti-Swimmer Grenades.	Up to 0.5 lb. NEW (E2).	190 yd. (174 m)	83 yd. (76 m)	182 yd. (167 m)	200 yd. (183 m).
Mine Countermeasure and Neutralization Activities Using Positive Control Firing Devices.	Dependent on charge size (see Table 12)				
Mine Neutralization Diver Placed Mines Using Time-Delay Firing Devices.	Up to 20 lb. NEW (E6).	647 yd. (592 m)	232 yd. (212 m)	469 yd. (429 m)	1,000 yd. (915 m).
Ordnance Testing (Line Charge Testing).	Numerous 5 lb. charges (E4).	434 yd. (397 m)	156 yd. (143 m)	563 yd. (515 m)	900 yd. (823 m).**
Gunnery Exercises—Small- and Medium-Caliber (Surface Target).	40 mm projectile (E2)	190 yd. (174 m)	83 yd. (76 m)	182 yd. (167 m)	200 yd. (183 m).
Gunnery Exercises—Large-Caliber (Surface Target).	5 in. projectiles (E5 at the surface ***).	453 yd. (414 m)	186 yd. (170 m)	526 yd. (481 m)	600 yd. (549 m).
Missile Exercises up to 250 lb. NEW (Surface Target).	Maverick missile (E9)	949 yd. (868 m)	398 yd. (364 m)	699 yd. (639 m)	900 yd. (823 m).
Missile Exercises up to 500 lb. NEW (Surface Target).	Harpoon missile (E10).	1,832 yd. (1,675 m) ..	731 yd. (668 m)	1,883 yd. (1,721 m) ..	2,000 yd. (1.8 km).
Bombing Exercises	MK–84 2,000 lb. bomb (E12).	2,513 yd. (2.3 km)	991 yd. (906 m)	2,474 yd. (2.3 km)	2,500 yd. (2.3 km).**

TABLE 11—PREDICTED AVERAGE RANGE TO TTS AND AVERAGE AND MAXIMUM RANGE TO PTS AND RECOMMENDED MITIGATION ZONES—Continued

Activity category	Representative source (bin) *	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone
Torpedo (Explosive) Testing.	MK–48 torpedo (E11)	1,632 yd. (1.5 km)	697 yd. (637 m)	2,021 yd. (1.8 km)	2,100 yd. (1.9 km).
Sinking Exercises	Various sources up to the MK–84 2,000 lb. bomb (E12).	2,513 yd. (2.3 km)	991 yd. (906 m)	2,474 yd. (2.3 km)	2.5 nm (4.6 km).**
Ship Shock Trials in JAX Range Complex.	10,000 lb. charge (HBX).	5.8 nm (10.8 km)	2.7 nm (4.9 km)	4.8 nm (8.9 km)	3.5 nm (6.5 km).
	40,000 lb. charge (HBX).	9.2 nm (17 km)	3.6 nm (6.6 km)	6.4 nm (11.9 km)	3.5 nm (6.5 km).
Ship Shock Trials in VACAPES Range Complex.	10,000 lb. charge (HBX).	9 nm (16.7 km)	2 nm (3.6 km)	4.7 nm (8.7 km)	3.5 nm (6.5 km).
	40,000 lb. charge (HBX).	10.3 nm (19.2 km)	3.7 nm (6.8 km)	7.6 nm (14 km)	3.5 nm (6.5 km).
At-Sea Explosive Testing.	Various sources less than 10 lb. NEW (E5 at various depths***).	525 yd. (480 m)	204 yd. (187 m)	649 yd. (593 m)	1,600 yd. (1.4 km).**
Elevated Causeway System—Pile Driving.	24 in. steel impact hammer.	1,094 yd. (1,000 m) ..	51 yd. (46 m)	51 yd. (46 m)	60 yd. (55 m).

ASW: Anti-submarine warfare; JAX: Jacksonville; NEW: Net explosive weight; PTS: Permanent threshold shift; TTS: Temporary threshold shift;
* This table does not provide an inclusive list of source bins; bins presented here represent the source bin with the largest range to effects within the given activity category.
** Recommended mitigation zones are larger than the modeled injury zones to account for multiple types of sources or charges being used.
*** The representative source bin E5 has different range to effects depending on the depth of activity occurrence (at the surface or at various depths).

TABLE 12—PREDICTED RANGE TO EFFECTS AND MITIGATION ZONE RADIUS FOR MINE COUNTERMEASURE AND NEUTRALIZATION ACTIVITIES USING POSITIVE CONTROL FIRING DEVICES

Charge size net explosive weight (bins)	General mine countermeasure and neutralization activities using positive control firing devices*				Mine countermeasure and neutralization activities using diver placed charges under positive control **			
	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone	Predicted average range to TTS	Predicted average range to PTS	Predicted maximum range to PTS	Recommended mitigation zone
2.6–5 lb. (E4)	434 yd. (474 m).	197 yd. (180 m).	563 yd. (515 m).	600 yd. (549 m).	545 yd. (498 m).	169 yd. (155 m).	301 yd. (275 m).	350 yd. (320 m).
6–10 lb. (E5)	525 yd. (480 m).	204 yd. (187 m).	649 yd. (593 m).	800 yd. (732 m).	587 yd. (537 m).	203 yd. (185 m).	464 yd. (424 m).	500 yd. (457 m).
11–20 lb. (E6)	766 yd. (700 m).	288 yd. (263 m).	648 yd. (593 m).	800 yd. (732 m).	647 yd. (592 m).	232 yd. (212 m).	469 yd. (429 m).	500 yd. (457 m).
21–60 lb. (E7) ***.	1,670 yd. (1,527 m).	581 yd. (531 m).	964 yd. (882 m).	1,200 yd. (1.1 km).	1,532 yd. (1,401 m).	473 yd. (432 m).	789 yd. (721 m).	800 yd. (732 m).
61–100 lb. (E8) ****.	878 yd. (802 m).	383 yd. (351 m).	996 yd. (911 m).	1,600 yd. (1.4 m).	969 yd. (886 m).	438 yd. (400 m).	850 yd. (777 m).	850 yd. (777 m).
250–500 lb. (E10).	1,832 yd. (1,675 m).	731 yd. (668 m).	1,883 yd. (1,721 m).	2,000 yd. (1.8 km).	.....	.....	.....	Not Applicable.
501–650 lb. (E11).	1,632 yd. (1,492 m).	697 yd. (637 m).	2,021 yd. (1,848 m).	2,100 yd. (1.9 km).	.....	.....	.....	Not Applicable.

PTS: Permanent threshold shift; TTS: Temporary threshold shift.
* These mitigation zones are applicable to all mine countermeasure and neutralization activities conducted in all locations that Tables 2.8–1 through 2.8–5 in the AFTT DEIS/OEIS specifies.
** These mitigation zones are only applicable to mine countermeasure and neutralization activities involving the use of diver placed charges. These activities are conducted in shallow-water and the mitigation zones are based only on the functional hearing groups with species that occur in these areas (mid-frequency cetaceans and sea turtles).
*** The E7 bin was only modeled in shallow-water locations so there is no difference for the diver placed charges category.
**** The E8 bin was only modeled for surface explosions, so some of the ranges are shorter than for sources modeled in the E7 bin which occur at depth.

When mine neutralization activities using diver placed charges (up to a 20 lb. NEW) are conducted with a time-delay firing device, the detonation is fused with a specified time-delay by the personnel conducting the activity and is not authorized until the area is clear at the time the fuse is initiated. During these activities, the detonation cannot

be terminated once the fuse is initiated due to human safety concerns. The Navy is proposing to modify the number of lookouts currently used for mine neutralization activities using diver-placed time-delay firing devices. As a reference, the current mitigation involves the use of six lookouts and three small rigid hull inflatable boats (two lookouts positioned in each of the three boats) for mitigation zones equal to or larger than 1,400 yd. (1,280 m), or four lookouts and two boats for mitigation zones smaller than 1,400 yd. (1,280 m), which was incorporated into the current Silver Strand Training Complex IHA to minimize the possibility of take by serious injury or mortality (which is not authorized under an IHA). The Navy has determined that using six lookouts and three boats in the long-term is impracticable to implement from an operational standpoint due to the impact that it is causing on resource requirements (i.e., limited personnel resources and boat availability). During activities using up to a 20 lb. NEW (bin E6) detonation, the Navy is proposing to have four lookouts and two small rigid hull inflatable boats (two lookouts positioned in each of the two boats). In addition, when aircraft are used, the pilot or member of the aircrew will serve as an additional lookout.

NMFS believes that the Navy's proposed modification to this mitigation measure will still reduce the potential for injury or mortality for several reasons: (1) The Navy's acoustic propagation modeling results show that the predicted ranges to TTS and PTS for mine neutralization diver place mines using time-delay firing devices do not exceed 647 yd (592 m), which is well within the proposed 1,000-yd (915-m) mitigation zone; (2) the number of lookouts for a 1,000-yd (915-m) mitigation zone would not change; (3) the maximum net explosive weight would decrease from 29 lb (currently) to 20 lb (proposed); (4) the Navy would continue to monitor the mitigation zone for 30 minutes before, during, and 30 after the activity to ensure that the area is clear of marine mammals; and (5) time-delay firing device activities are only conducted during daylight hours.

Mitigation Areas

The Navy proposes to implement several mitigation measures within pre-defined habitat areas in the AFTT Study Area. NMFS and the Navy refer to these areas as ''mitigation areas.'' It is important to note that the mitigation measures proposed for implementation only apply within each area as described.

North Atlantic Right Whale Mitigation Area Off the Southeast United States

Several mitigation measures are proposed for implementation within pre-defined boundaries of a North Atlantic right whale mitigation area off the southeast United States annually during calving season between November 15 and April 15. The southeast United States mitigation area is defined as follows (and depicted in Figure 4–1 of the LOA application): A 5 nm (9.3 km) buffer around the coastal waters between 31°15′ North and 30°15′ North from the coast out 15 nm (27.8 km); and the coastal waters between 30°15′ North and 28°00′ North from the coast out 5 nm (9.3 km).

The Navy would not conduct the following activities within the mitigation area:

- High-frequency and non-hull mounted mid-frequency active sonar (excluding helicopter dipping)
- Missile activities (explosive and non-explosive)
- Bombing exercises (explosive and non-explosive)
- Underwater detonations
- Improved extended echo ranging sonobuoy exercises
- Torpedo exercises (explosive)
- Small-, medium-, and large-caliber gunnery exercises

The Navy would minimize, to the maximum extent practicable, the use of the following systems within the mitigation area:

- Helicopter dipping using active sonar
- Low-frequency and hull-mounted mid-frequency active sonar used for navigation training
- Low-frequency and hull-mounted mid-frequency active sonar used for object detection exercises

Before transiting through or conducting any training or testing activities within the mitigation area, the Navy would communicate with the Fleet Area Control and Surveillance Facility, Jacksonville to obtain Early Warning System North Atlantic right whale sightings data. The Fleet Area Control and Surveillance Facility, Jacksonville, would advise ships of all reported whale sightings in the vicinity of the mitigation area to help ships and aircraft reduce potential interactions with North Atlantic right whales. Commander Submarine Force United States Atlantic Fleet would coordinate any submarine operations that may require approval from the Fleet Area Control and Surveillance Facility, Jacksonville. When transiting within the mitigation area, all Navy vessels would exercise extreme caution and proceed at the slowest speed that is consistent with safety, mission, training, and operations. Vessels would implement speed reductions under any of the following conditions: (1) After they observe a North Atlantic right whale; (2) if they are within 5 nm (9 km) of a sighting reported within the past 12 hours.; or (3) when operating at night or during periods of poor visibility. The Navy would minimize to the maximum extent practicable north-south transits through the mitigation area. The Navy may periodically travel in a north-south direction during training and testing activities due to operational requirements. If north-south directional travel is required during training or testing activities, the Navy would implement the increased caution and speed reductions described above when applicable.

North Atlantic Right Whale Mitigation Area Off the Northeast United States

Two important North Atlantic right whale foraging habitats, the Great South Channel and Cape Cod Bay, are located off the northeast United States. These two areas comprise the northeast United States mitigation area, which apply year-round and are defined as follows:

- Great South Channel: The area bounded by 41°40′ North/69°45′ West; 41°00′ North/69°05′ West; 41°38′ North/68°13′ West; and 42°10′ North/68°31′ West
- Cape Cod Bay: The area bounded by 42°04.8′ North/70°10′ West; 42°12′ North/70°15′ West; 42°12′ North/70°30′ West; 41°46.8′ North/70°30′ West and on the south and east by the interior shoreline of Cape Cod, Massachusetts

The Navy would not conduct the following activities within the boundaries of the mitigation area or within additional specified distances from the mitigation area:

- Improved extended echo ranging sonobuoy exercises in or within 3 nm (5.6 km) of the mitigation area
- Bombing exercises (explosive and non-explosive)
- Underwater detonations
- Torpedo exercises (explosive)

The Navy would minimize to the maximum extent practicable the use of the following systems within the boundaries of the mitigation area:

- Low-frequency and hull-mounted active sonar
- High-frequency and non-hull mounted mid-frequency active sonar, including helicopter dipping

Before transiting the mitigation area with a surface vessel, the Navy would conduct a prior web query or email inquiry to the NMFS Northeast U.S.

Right Whale Sighting Advisory System in order to obtain the latest North Atlantic right whale sighting information. When transiting within the mitigation area, Navy vessels would exercise extreme caution and proceed at the slowest speed that is consistent with safety, mission, training, and operations. Vessels would implement speed reductions under the following conditions: (1) After they observe a North Atlantic right whale; (2) if they are within 5 nm (9 km) of a sighting reported within the past week; or (3) when operating at night or during periods of poor visibility. These additional speed reductions shall be implemented according to Rule 6 of the International Navigation Rules ((COLREGS, 1972).

Additional mitigation would be required when conducting Torpedo Exercises (TORPEXs) in the Northeast Right Whale Mitigation Area. Surface vessels and submarines would maintain a speed of no more than 10 knots (19 km/hr.) during transit; and torpedo exercise firing vessel speeds would range from 10 knots (19 km/hr.) during normal firing, 18 knots (33.3 km/hr.) during submarine target firing, and in excess of 18 knots (33.3 km/hr.) during surface vessel target firing (speeds in excess of 18 knots would occur for a short time [e.g., 10–15 min.]).

The Navy would conduct all non-explosive torpedo testing during daylight hours in Beaufort sea states of 3 or less to increase the probability of marine mammal detection. Mitigation would include visual observation immediately before and during the exercise within the immediate vicinity of the activity. During the conduct of the test, visual surveys of the test area would be conducted by all vessels and aircraft involved in the exercise to detect the presence of marine mammals. The test scenario would not commence if concentrations of floating vegetation (*Sargassum* or kelp patties) are observed in the immediate vicinity of the activity. The test scenario would cease if a North Atlantic right whale is visually detected within the immediate vicinity of the activity. The test scenario would re-commence if any one of the following conditions are met: (1) The animal is observed exiting the immediate vicinity of the activity, (2) the animal is thought to have exited the immediate vicinity of the activity based on its course and speed, or (3) the immediate vicinity of the activity has been clear from any additional sightings for a period of 30 minutes.

North Atlantic Right Whale Mid-Atlantic Mitigation Area

A North Atlantic right whale migratory route is located off the mid-Atlantic coast of the United States. When transiting within the mitigation area, the Navy would practice increased vigilance, exercise extreme caution, and proceed at the slowest speed that is consistent with safety, mission, and training and testing objectives. This mitigation area would apply from November 1 through April 30 and would be defined as follows:

- Block Island Sound: The area bounded by 40°51′53.7″ North/070°36′44.9″ West; 41°20′14.1″ North/070°49′44.1″ West
- New York and New Jersey: 20 nm (37 km) seaward of the line between 40°29′42.2″ North/073°55′57.6″ West
- Delaware Bay: 38°52′27.4″ North/075°01′32.1″ West
- Chesapeake Bay: 37°00′36.9″ North/075°57″50.5″ West
- Morehead City, North Carolina: 34°41′32.0″ North/076°40′08.3″ West
- Wilmington, North Carolina, through South Carolina, and to Brunswick, Georgia: Within a continuous area 20 nm from shore and west back to shore bounded by 34°10′30″ North/077°49′12″ West; 33°56′42″ North/077°31′30″ West; 33°36′30″ North/077°47′06″ West; 33°28′24″ North/078°32′30″ West; 32°59′06″ North/078°50′18″ West; 31°50′00″North/080°33′12″ West; 31°27′00″ North/080°51′36″ West

Planning Awareness Areas

The Navy has designated several planning awareness areas (PAAs) based on locations of high productivity that have been correlated with high concentrations of marine mammals (such as persistent oceanographic features like upwellings associated with the Gulf Stream front where it is deflected off the east coast near the Outer Banks), and areas of steep bathymetric contours that are frequented by deep diving marine mammals such as beaked whales and sperm whales.

For events involving active sonar, the Navy would avoid planning major exercises in planning awareness areas (Figure 11–1 in the LOA application) when feasible. To the extent operationally feasible, the Navy would not conduct more than one of the five major exercises or similar scale events per year in the Gulf of Mexico planning awareness area. If national security needs require the conduct of more than five major exercises or similar scale events in the planning awareness areas per year, or more than one within the Gulf of Mexico planning awareness area per year, the Navy would provide NMFS with prior notification and include the information in any associated after-action or monitoring reports.

Cetacean and Sound Mapping

NMFS Office of Protected Resources standardly considers available information about marine mammal habitat use to inform discussions with applicants regarding potential spatio-temporal limitations of their activities that might help effect the least practicable adverse impact (e.g., Planning Awareness Areas). Through the Cetacean and Sound Mapping effort (*www.cetsound.noaa.gov*), NOAA's Cetacean Density and Distribution Mapping Working Group (CetMap) is currently involved in a process to compile available literature and solicit expert review to identify areas and times where species are known to concentrate for specific behaviors (e.g., feeding, breeding/calving, or migration) or be range-limited (e.g., small resident populations). These areas, called Biologically Important Areas (BIAs), are useful tools for planning and impact assessments and are being provided to the public via the CetSound Web site, along with a summary of the supporting information. While these BIAs are useful tools for analysts, any decisions regarding protective measures based on these areas must go through the normal MMPA evaluation process (or any other statutory process that the BIAs are used to inform)—the designation of a BIA does not pre-suppose any specific management decision associated with those areas. Additionally, the BIA process is iterative and the areas will be updated as new information becomes available. Currently, NMFS has published BIAs for the Arctic Slope and some in Hawaii. The BIAs in other regions, such as the Atlantic and West Coast of the continental U.S. are still in development. We have indicated to the Navy that once these BIAs are complete and put on the Web site, we may need to discuss whether (in the context of the nature and scope of any Navy activities planned in and around the BIAs, what impacts might be anticipated, and practicability) additional protective measures might be appropriate.

Stranding Response Plan

NMFS and the Navy developed Stranding Response Plans for the Study Areas and Range Complexes that make up the AFTT Study Area in 2009 as part of the previous incidental take authorization process. The Stranding Response Plans are specifically

intended to outline the applicable requirements the authorizations are conditioned upon in the event that a marine mammal stranding is reported in the east coast Range Complexes and AFAST Study Area during a major training exercise. NMFS considers all plausible causes within the course of a stranding investigation and these plans in no way presume that any strandings in a Navy range complex are related to, or caused by, Navy training and testing activities, absent a determination made during investigation. The plans are designed to address mitigation, monitoring, and compliance. The Navy is currently working with NMFS to refine these plans for the new AFTT Study Area. The current Stranding Response Plans are available for review here: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*.

Mitigation Conclusions

NMFS has carefully evaluated the Navy's proposed mitigation measures and considered a broad range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable adverse impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another: the manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts on marine mammals; the proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and the practicability of the measure for applicant implementation, including consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

In some cases, additional mitigation measures are required beyond those that the applicant proposes. Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed below:

(a) Avoidance or minimization of injury or death of marine mammals wherever possible (goals b, c, and d may contribute to this goal).

(b) A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to received levels of sonar and other active acoustic sources, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(c) A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to received levels of sonar and other active acoustic sources, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(d) A reduction in the intensity of exposures (either total number or number at biologically important time or location) to received levels of sonar and other active acoustic sources, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

(e) Avoidance or minimization of adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

(f) For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation (shut-down zone, etc.).

Based on our evaluation of the Navy's proposed measures, as well as other measures considered by NMFS or recommended by the public, NMFS has determined preliminarily that the Navy's proposed mitigation measures (especially when the adaptive management component is taken into consideration (see Adaptive Management, below)) are adequate means of effecting the least practicable adverse impacts on marine mammals species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. Further detail is included below.

The proposed rule comment period will afford the public an opportunity to submit recommendations, views, and/or concerns regarding this action and the proposed mitigation measures. While NMFS has determined preliminarily that the Navy's proposed mitigation measures would effect the least practicable adverse impact on the affected species or stocks and their habitat, NMFS will consider all public comments to help inform our final decision. Consequently, the proposed mitigation measures may be refined, modified, removed, or added to prior to the issuance of the final rule based on public comments received, and where appropriate, further analysis of any additional mitigation measures.

Monitoring

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth ''requirements pertaining to the monitoring and reporting of such taking.'' The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for LOAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

(1) An increase in the probability of detecting marine mammals, both within the safety zone (thus allowing for more effective implementation of the mitigation) and in general to generate more data to contribute to the analyses mentioned below

(2) An increase in our understanding of how many marine mammals are likely to be exposed to levels of sonar and other active acoustic sources (or explosives or other stimuli) that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS.

(3) An increase in our understanding of how marine mammals respond to sonar and other active acoustic sources (at specific received levels), explosives, or other stimuli expected to result in take and how anticipated adverse effects on individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival) through any of the following methods:

- Behavioral observations in the presence of sonar and other active acoustic sources compared to observations in the absence of sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information)
- Physiological measurements in the presence of sonar and other active acoustic sources compared to observations in the absence of tactical sonar (need to be able to accurately predict received level and report

bathymetric conditions, distance from source, and other pertinent information)

- Pre-planned and thorough investigation of stranding events that occur coincident to naval activities
- Distribution and/or abundance comparisons in times or areas with concentrated sonar and other active acoustic sources versus times or areas without sonar and other active acoustic sources
- An increased knowledge of the affected species
- An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

Overview of Navy Monitoring Program

The current Navy monitoring program is composed of a collection of ''range-specific'' monitoring plans, each developed individually as part of the previous MMPA/ESA authorization processes. These individual plans established specific monitoring requirements for each range complex based on a set of effort-based metrics (e.g., 20 days of aerial survey). Concurrent with implementation of the initial range-specific monitoring plans, the Navy and NMFS began development of the Integrated Comprehensive Monitoring Program (ICMP). The ICMP has been developed in direct response to Navy permitting requirements established in various MMPA final rules, ESA consultations, Biological Opinions, and applicable regulations. The ICMP is intended to coordinate monitoring efforts across all regions and to allocate the most appropriate level and type of effort for each range complex based on a set of standardized objectives, and in acknowledgement of regional expertise and resource availability. The ICMP is designed to be flexible, scalable, and adaptable plan, through the adaptive management and strategic planning processes to periodically assess progress, and re-evaluate objectives.

Although the ICMP does not specify actual monitoring field work or projects, it does establish top-level goals that have been developed in coordination with NMFS. As the ICMP is implemented, detailed and specific studies will be developed which support the Navy's top-level monitoring goals. In essence, the ICMP directs that monitoring activities relating to the effects of Navy training and testing activities on marine species should be designed to accomplish one or more of the following top-level goals:

- An increase in our understanding of the likely occurrence of marine mammals and/or ESA-listed marine species in the vicinity of the action (i.e., presence, abundance, distribution, and/or density of species);
- An increase in our understanding of the nature, scope, or context of the likely exposure of marine mammals and/or ESA-listed species to any of the potential stressor(s) associated with the action (e.g., tonal and impulsive sound), through better understanding of one or more of the following: (1) The action and the environment in which it occurs (e.g., sound source characterization, propagation, and ambient noise levels); (2) the affected species (e.g., life history or dive patterns); (3) the likely co-occurrence of marine mammals and/or ESA-listed marine species with the action (in whole or part) associated with specific adverse effects, and/or; (4) the likely biological or behavioral context of exposure to the stressor for the marine mammal and/or ESA-listed marine species (e.g., age class of exposed animals or known pupping, calving or feeding areas);
- An increase in our understanding of how individual marine mammals or ESA-listed marine species respond (behaviorally or physiologically) to the specific stressors associated with the action (in specific contexts, where possible, e.g., at what distance or received level);
- An increase in our understanding of how anticipated individual responses, to individual stressors or anticipated combinations of stressors, may impact either: (1) The long-term fitness and survival of an individual; or (2) the population, species, or stock (e.g., through effects on annual rates of recruitment or survival);
- An increase in our understanding of the effectiveness of mitigation and monitoring measures;
- A better understanding and record of the manner in which the authorized entity complies with the ITA and Incidental Take Statement;
- An increase in the probability of detecting marine mammals (through improved technology or methods), both specifically within the safety zone (thus allowing for more effective implementation of the mitigation) and in general, to better achieve the above goals; and
- A reduction in the adverse impact of activities to the least practicable level, as defined in the MMPA.

While the ICMP only directly applies to monitoring activities under applicable MMPA and ESA authorizations, it also serves to facilitate coordination among the Navy's marine species monitoring program and the basic and applied research programs discussed in the Research Section of this document.

An October 2010 Navy monitoring meeting initiated a process to critically evaluate current Navy monitoring plans and begin development of revisions to existing range-specific monitoring plans and associated updates to the ICMP. Discussions at that meeting and through the Navy/NMFS adaptive management process established a way ahead for continued refinement of the Navy's monitoring program. This process included establishing a Scientific Advisory Group (SAG) composed of technical experts to provide objective scientific guidance for Navy consideration. The Navy established the SAG in early 2011 with the initial task of evaluating current Navy monitoring approaches under the ICMP and existing LOAs and developing objective scientific recommendations that would serve as the basis for a Strategic Planning Process for Navy monitoring to be incorporated as a major component of the ICMP. The SAG convened in March 2011, composed of leading academic and civilian scientists with significant expertise in marine species monitoring, acoustics, ecology, and modeling. The SAG's final report laid out both over-arching and range-specific recommendations for the Navy's Marine Species Monitoring program and is available through the US Navy Marine Species Monitoring web portal at *http://www.navymarinespeciesmonitoring.us/*. Adaptive management discussions between the Navy and NMFS established a way ahead for continued refinement of the Navy's monitoring program. Consensus was that the ICMP and associated implementation components would continue the evolution of Navy marine species monitoring towards a single integrated program, incorporate SAG recommendations when appropriate and logistically feasible, and establish a more collaborative framework for evaluating, selecting, and implementing future monitoring across the all Navy range complexes through the adaptive management and strategic planning process.

Past and Current Monitoring in the AFTT Study Area

NMFS has received multiple years' worth of annual exercise and monitoring reports addressing active sonar use and explosive detonations within the AFTT Study Area. The data and information contained in these reports have been considered in developing mitigation and monitoring measures for the proposed training and testing activities within the AFTT Study Area. The Navy's annual exercise and

monitoring reports may be viewed at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*; or at the Navy's marine species monitoring Web site: *http://www.navymarinespeciesmonitoring.us/*.

NMFS has reviewed these reports and summarized the results, as related to marine mammal monitoring, below.

(1) The Navy has shown significant initiative in developing its marine species monitoring program and made considerable progress toward reaching goals and objectives of the ICMP.

(2) Observation data from watchstanders aboard Navy vessels is generally useful to indicate the presence or absence of marine mammals within the mitigation zones (and sometimes without) and to document the implementation of mitigation measures, but does not provide useful species-specific information or behavioral data.

(3) Data gathered by experienced marine mammal observers can provide very valuable information at a level of detail not possible with watchstanders.

(4) Though it is by no means conclusive, it is worth noting that no instances of obvious behavioral disturbance have been observed by Navy watchstanders or experienced marine mammal observers conducting visual monitoring.

(5) Visual surveys generally provide suitable data for addressing questions of distribution and abundance of marine mammals but are much less effective at providing information on movements and behavior, with a few notable exceptions where sightings are most frequent.

(6) Passive acoustics and animal tagging have significant potential for applications addressing animal movements and behavioral response to Navy training activities but require a longer time horizon and heavy investment in analysis to produce relevant results.

(7) NMFS and the Navy should more carefully consider what and how information should be gathered during training exercises and monitoring events, as some reports contain different information, making cross-report comparisons difficult.

The Navy has invested over $10M in monitoring activities in the AFAST and east coast range complex portions of AFTT Study Area since 2009 and has accomplished the following:

- Covered over 150,000 km of visual survey effort;
- Sighted over 30,000 individual marine mammals;
- Monitored 20 individual training exercise events;
- Taken over 23,000 digital photos;
- Collected over 100 biopsy samples;
- Deployed 11 DTags and conducted 6 playback exposures on short finned pilot whales;
- Made 23 HARP deployments and collected over 28,000 hours of passive acoustic recordings;
- Deployed 3 temporary bottom-mounted passive acoustic arrays during training exercises.

In addition, 518 sightings for an estimated 2,645 marine mammals were reported by watchstanders aboard navy ships within the AFTT Study Area from 2009 to 2012. These observations were mainly during major at-sea training events and there were no reported observations of adverse reactions by marine mammals and no dead or injured animals reported associated with navy training activities.

Proposed Monitoring for the AFTT Study Area

Based on discussions between the Navy and NMFS, future monitoring would address the ICMP top-level goals through a collection of specific regional and ocean basin studies based on scientific objectives. Quantitative metrics of monitoring effort (e.g., 20 days of aerial survey) would not be a specific requirement. The adaptive management process and reporting requirements would serve as the basis for evaluating performance and compliance, primarily considering the quality of the work and results produced as well as peer review and publications, and public dissemination of information, reports, and data. The strategic planning process (see below) would be used to set intermediate scientific objectives, identify potential species of interest at a regional scale, and evaluate and select specific monitoring projects to fund or continue supporting for a given fiscal year. The strategic planning process would also address relative investments to different range complexes based on goals across all range complexes, and monitoring would leverage multiple techniques for data acquisition and analysis whenever possible.

Research

Overview

The Navy is working towards a better understanding of marine mammals and sound in ways that are not directly related to the MMPA process. The Navy highlights some of those ways in the section below. Further, NMFS is working on a long-term stranding study that will be supported by the Navy by way of a funding and information sharing component (see below).

Navy Research

The Navy is one of the world's leading organizations in assessing the effects of human activities on the marine environment, and provides a significant amount of funding and support to marine research. They also develop approaches to ensure that these resources are minimally impacted by current and future Navy operations. Navy scientists work cooperatively with other government researchers and scientists, universities, industry, and non-governmental conservation organizations in collecting, evaluating, and modeling information on marine resources, including working towards a better understanding of marine mammals and sound. From 2004 to 2012, the Navy has provided over $230 million for marine species research. The U.S. Navy sponsors 70 percent of all U.S. research concerning the effects of human-generated sound on marine mammals and 50 percent of such research conducted worldwide. Major topics of Navy-supported marine species research directly applicable to AFTT activities include the following:

- Better understanding of marine species distribution and important habitat areas;
- Developing methods to detect and monitor marine species before and during training;
- Understanding the impacts of sound on marine mammals, sea turtles, fish, and birds;
- Developing tools to model and estimate potential impacts of sound.

It is imperative that the Navy's research and development (R&D) efforts related to marine mammals are conducted in an open, transparent manner with validated study needs and requirements. The goal of the Navy's R&D program is to enable collection and publication of scientifically valid research as well as development of techniques and tools for Navy, academic, and commercial use. The two Navy organizations that account for most funding and oversight of the Navy marine mammal research program are the Office of Naval Research (ONR) Marine Mammals and Biology (MMB) Program, and the Office of the Chief of Naval Operations (CNO) Energy and Environmental Readiness Division (N45) Living Marine Resources (LMR) Program. The primary focus of these programs has been on understanding the effects of sound on marine mammals, including physiological, behavioral and ecological effects.

The ONR Marine Mammals and Biology program supports basic and applied research and technology

development related to understanding the effects of sound on marine mammals, including physiological, behavioral, ecological effects and population-level effects. Current program thrusts include, but are not limited to:

- Monitoring and detection;
- Integrated ecosystem research including sensor and tag development;
- Effects of sound on marine life [including hearing, behavioral response studies, diving and stress, physiology, and Population Consequences of Acoustic Disturbance (PCAD); and
- Models and databases for environmental compliance.

The mission of the LMR program is to develop, demonstrate, and assess information and technology solutions to protect living marine resources by minimizing the environmental risks of Navy at-sea training and testing activities while preserving core Navy readiness capabilities. This mission is accomplished by:

- Providing science-based information to support Navy environmental effects assessments for research, development, acquisition, testing and evaluation (RDAT&E) as well as Fleet at-sea training, exercises, maintenance and support activities;
- Improving knowledge of the status and trends of marine species of concern and the ecosystems of which they are a part;
- Developing the scientific basis for the criteria and thresholds to measure the effects of Navy generated sound;
- Improving understanding of underwater sound and sound field characterization unique to assessing the biological consequences resulting from underwater sound (as opposed to tactical applications of underwater sound or propagation loss modeling for military communications or tactical applications); and
- Developing technologies and methods to monitor and, where possible, mitigate biologically significant consequences to living marine resources resulting from naval activities, emphasizing those consequences that are most likely to be biologically significant.

The program is focused on three primary objectives that influence program management priorities and directly affect the program's success in accomplishing its mission:

(1) Collect, Validate and Rank R&D Needs: Expand awareness of R&D program opportunities within the Navy marine resource community to encourage and facilitate the submittal of well-defined and appropriate needs statements.

(2) Address High Priority Needs: Ensure that program investments and the resulting projects maintain a direct and consistent link to the defined user needs.

(3) Transition Solutions and Validate Benefits: Maximize the number of program-derived solutions that are successfully transitioned to the Fleet and system commands (SYSCOMs). The LMR program primarily invests in the following areas:

- Developing Data to Support Risk Threshold Criteria;
- Improved Data Collection on Protected Species, Critical Habitat within Navy Ranges;
- New Monitoring and Mitigation Technology Demonstrations;
- Database and Model Development;
- Education and Outreach, Emergent Opportunities.

The Navy has also developed the technical reports and supporting data referenced used for analysis in the AFTT EIS/OEIS and this proposed rule, which include the Navy Marine Species Density Database (NMSDD), Acoustic Criteria and Thresholds, and Determination of Acoustic Effects on Marine Mammals and Sea Turtles. Furthermore, research cruises by the NMFS and by academic institutions have received funding from the U.S. Navy. For instance, the ONR contributed financially to the Sperm Whale Seismic Study (SWSS) in the Gulf of Mexico, and CNO–N45 currently supports the Atlantic Marine Assessment Program for Protected Species (AMAPPS). Both the ONR and CNO–N45 programs are partners in the multi-year Southern California Behavioral Response Study (SOCAL–BRS). All of this research helps in understanding the marine environment and the effects that may arise from underwater noise in the oceans. Further, NMFS is working on a long-term stranding study that will be supported by the Navy by way of a funding and information sharing component (see below).

Adaptive Management and Strategic Planning Process

The final regulations governing the take of marine mammals incidental to Navy training and testing exercises in the AFTT Study Area would continue to contain an adaptive management component carried over from previous authorizations. Although better than five years ago, our understanding of the effects of Navy training and testing (e.g., sonar and other active acoustic sources and explosives) on marine mammals is still relatively limited, and yet the science in this field is evolving fairly quickly. These circumstances make the inclusion of an adaptive management component both valuable and necessary within the context of 5-year regulations for activities that have been associated with marine mammal mortality in certain circumstances and locations (though not the AFTT Study Area). The proposed reporting requirements are designed to provide NMFS with monitoring data from the previous year, which allows NMFS to consider whether any changes are appropriate. NMFS and the Navy would meet to discuss the monitoring reports, Navy R&D developments, and current science and whether mitigation or monitoring modifications are appropriate. The use of adaptive management would allow the Navy and NMFS to consider new data from different sources to determine if modified mitigation or monitoring measures are warranted (including possible additions or deletions). Mitigation and monitoring measures could be modified, added, or deleted if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects on marine mammals and if the measures are practicable.

The following are some of the possible sources of applicable data to be considered through the adaptive management process: (1) Results from monitoring and exercises reports; (2) compiled results of Navy funded research and development (R&D) studies; (3) results from specific stranding investigations; (4) results from general marine mammal and sound research; and (5) any information which reveals that marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent LOAs.

The Navy is currently establishing a strategic planning process under the ICMP in coordination with NMFS. The objective of the strategic planning process is to guide the continued evolution of Navy marine species monitoring towards a single integrated program, incorporating expert review and recommendations, and establishing a more structured and collaborative framework for evaluating, selecting, and implementing future monitoring across the all Navy range complexes. The Strategic Plan is intended to be a primary component of the ICMP and provide a ''vision'' for Navy monitoring across geographic regions—serving as guidance for determining how to most efficiently and effectively invest the marine species monitoring resources to address ICMP top-level goals and satisfy MMPA monitoring requirements.

This process is being designed to integrate various elements including:

- Integrated Comprehensive monitoring Program top-level goals;
- Scientific Advisory Group recommendations;
- Integration of regional scientific expert input;
- Ongoing adaptive management review dialog between NMFS and Navy;
- Lessons learned from past and future monitoring at Navy training and testing ranges;
- Leveraged research and lessons learned from other Navy funded marine science programs

NMFS and the Navy continue to coordinate on the strategic planning process through the regulatory process of this proposed rule; however, these discussions are still ongoing and we anticipate that more specific details will be available by the time it is finalized in advance of the issuance of the final rule. Additionally, the process and associated monitoring requirements may be modified or supplemented based on comments or new information received from the public during the public comment period.

Reporting

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth ''requirements pertaining to the monitoring and reporting of such taking.'' Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring. Some of the reporting requirements are still in development and the final rule may contain additional details not contained in the proposed rule. Additionally, proposed reporting requirements may be modified, eliminated, or added based on information or comments received during the public comment period. Reports from individual monitoring events, results of analyses, publications, and periodic progress reports for specific monitoring projects will be posted to the U.S. Navy Marine Species Monitoring web portal as they become available. Currently, there are several specific reporting requirements pursuant to these proposed regulations:

General Notification of Injured or Dead Marine Mammals

Navy personnel would ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as clearance procedures allow) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The Navy would provide NMFS with species identification or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photographs or video (if available). The AFTT Stranding Response Plan would contain more specific reporting requirements for specific circumstances.

Annual Monitoring and Exercise Report

As noted above, reports from individual monitoring events, results of analyses, publications, and periodic progress reports for specific monitoring projects would be posted to the Navy's Marine Species Monitoring web portal as they become available. Progress and results from all monitoring activity conducted within the AFTT Study Area, as well as required Major Training Event exercise activity, would be summarized in an annual report. A draft of this report would be submitted to NMFS for review by April 15 of each year. NMFS would review the report and provide comments for incorporation within 3 months.

Comprehensive Monitoring and Exercise Summary Report

The Navy would submit to NMFS a draft report that analyzes, compares, and summarizes all multi-year marine mammal data gathered during training and testing exercises for which individual annual reports are required under the proposed regulations. This report would be submitted at the end of the fourth year of the rule (December 2018), covering activities that have occurred through June 1, 2018. The Navy would respond to NMFS comments on the draft comprehensive report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or 3 months after the submittal of the draft if NMFS does not provide comments.

Estimated Take of Marine Mammals

In the potential effects section, NMFS' analysis identified the lethal responses, physical trauma, sensory impairment (PTS, TTS, and acoustic masking), physiological responses (particular stress responses), and behavioral responses that could potentially result from exposure to sonar and other active acoustic sources and explosives and other impulsive sources. In this section, we will relate the potential effects to marine mammals from these sound sources to the MMPA regulatory definitions of Level A and Level B Harassment and attempt to quantify the effects that might occur from the specific training and testing activities that the Navy proposes in the AFTT Study Area.

As mentioned previously, behavioral responses are context-dependent, complex, and influenced to varying degrees by a number of factors other than just received level. For example, an animal may respond differently to a sound emanating from a ship that is moving towards the animal than it would to an identical received level coming from a vessel that is moving away, or to a ship traveling at a different speed or at a different distance from the animal. At greater distances, though, the nature of vessel movements could also potentially not have any effect on the animal's response to the sound. In any case, a full description of the suite of factors that elicited a behavioral response would require a mention of the vicinity, speed and movement of the vessel, or other factors. So, while sound sources and the received levels are the primary focus of the analysis and those that are laid out quantitatively in the regulatory text, it is with the understanding that other factors related to the training are sometimes contributing to the behavioral responses of marine mammals, although they cannot be quantified.

Definition of Harassment

As mentioned previously, with respect to military readiness activities, section 3(18)(B) of the MMPA defines ''harassment'' as: (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Level B Harassment

Of the potential effects that were described in the Potential Effects of Exposure of Marine Mammal to Non-Impulsive and Impulsive Sound Sources Section, the following are the types of effects that fall into the Level B Harassment category:

Behavioral Harassment—Behavioral disturbance that rises to the level described in the definition above, when resulting from exposures to non-impulsive or impulsive sound, is considered Level B Harassment. Some of the lower level physiological stress

responses discussed earlier would also likely co-occur with the predicted harassments, although these responses are more difficult to detect and fewer data exist relating these responses to specific received levels of sound. When Level B Harassment is predicted based on estimated behavioral responses, those takes may have a stress-related physiological component as well.

Earlier in this document, we described the Southall *et al.,* (2007) severity scaling system and listed some examples of the three broad categories of behaviors: 0–3 (Minor and/or brief behaviors); 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival); 7–9 (Behaviors considered likely to affect the aforementioned vital rates). Generally speaking, MMPA Level B Harassment, as defined in this document, would include the behaviors described in the 7–9 category, and a subset, dependent on context and other considerations, of the behaviors described in the 4–6 categories. Behavioral harassment does not generally include behaviors ranked 0–3 in Southall *et al.,* (2007).

Acoustic Masking and Communication Impairment—Acoustic masking is considered Level B Harassment as it can disrupt natural behavioral patterns by interrupting or limiting the marine mammal's receipt or transmittal of important information or environmental cues.

TTS—As discussed previously, TTS can affect how an animal behaves in response to the environment, including conspecifics, predators, and prey. The following physiological mechanisms are thought to play a role in inducing auditory fatigue: Effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output. Ward (1997) suggested that when these effects result in TTS rather than PTS, they are within the normal bounds of physiological variability and tolerance and do not represent a physical injury. Additionally, Southall *et al.* (2007) indicate that although PTS is a tissue injury, TTS is not because the reduced hearing sensitivity following exposure to intense sound results primarily from fatigue, not loss, of cochlear hair cells and supporting structures and is reversible. Accordingly, NMFS classifies TTS (when resulting from exposure sonar and other active acoustic sources and explosives and other impulsive sources) as Level B Harassment, not Level A Harassment (injury).

Level A Harassment

Of the potential effects that were described earlier, following are the types of effects that fall into the Level A Harassment category:

PTS—PTS (resulting either from exposure to sonar and other active acoustic sources or explosive detonations) is irreversible and considered an injury. PTS results from exposure to intense sounds that cause a permanent loss of inner or outer cochlear hair cells or exceed the elastic limits of certain tissues and membranes in the middle and inner ears and result in changes in the chemical composition of the inner ear fluids.

Tissue Damage due to Acoustically Mediated Bubble Growth—A few theories suggest ways in which gas bubbles become enlarged through exposure to intense sounds (sonar and other active acoustic sources) to the point where tissue damage results. In rectified diffusion, exposure to a sound field would cause bubbles to increase in size. A short duration of sonar pings (such as that which an animal exposed to MFAS would be most likely to encounter) would not likely be long enough to drive bubble growth to any substantial size. Alternately, bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. The degree of supersaturation and exposure levels observed to cause microbubble destabilization are unlikely to occur, either alone or in concert because of how close an animal would need to be to the sound source to be exposed to high enough levels, especially considering the likely avoidance of the sound source and the required mitigation. Still, possible tissue damage from either of these processes would be considered an injury.

Tissue Damage due to Behaviorally Mediated Bubble Growth—Several authors suggest mechanisms in which marine mammals could behaviorally respond to exposure to sonar and other active acoustic sources by altering their dive patterns in a manner (unusually rapid ascent, unusually long series of surface dives, etc.) that might result in unusual bubble formation or growth ultimately resulting in tissue damage (emboli, etc.) In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation.

There is considerable disagreement among scientists as to the likelihood of this phenomenon (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Although it has been argued that traumas from recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.,* 2003; Fernandez *et al.,* 2005), nitrogen bubble formation as the cause of the traumas has not been verified. If tissue damage does occur by this phenomenon, it would be considered an injury.

Physical Disruption of Tissues Resulting from Explosive Shock Wave—Physical damage of tissues resulting from a shock wave (from an explosive detonation) is classified as an injury. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000) and gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill 1978; Yelverton *et al.,* 1973). Nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Severe damage (from the shock wave) to the ears can include tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear.

Vessel or Ordnance Strike—Vessel strike or ordnance strike associated with the specified activities would be considered Level A harassment, serious injury, or mortality.

Take Criteria

For the purposes of an MMPA authorization, three types of take are identified: Level B Harassment; Level A Harassment; and mortality (or serious injury leading to mortality). The categories of marine mammal responses (physiological and behavioral) that fall into the two harassment categories were described in the previous section.

Because the physiological and behavioral responses of the majority of the marine mammals exposed to non-impulse and impulse sounds cannot be detected or measured (not all responses visible external to animal, portion of exposed animals underwater (so not visible), many animals located many miles from observers and covering very large area, etc.) and because NMFS must authorize take prior to the impacts on marine mammals, a method is needed to estimate the number of individuals that will be taken, pursuant to the MMPA, based on the proposed action. To this end, the Navy's application and the AFTT DEIS/OEIS contain proposed acoustic criteria and thresholds that would, in some instances, represent changes from what NMFS has used to

evaluate the Navy's proposed activities for past incidental take authorizations. The revised thresholds are based on evaluations of recent scientific studies; a detailed explanation of how they were derived is provided in the AFTT DEIS/OEIS Criteria and Thresholds Technical Report. NMFS is currently updating and revising all of its acoustic criteria and thresholds. Until that process is complete, NMFS will continue its long-standing practice of considering specific modifications to the acoustic criteria and thresholds currently employed for incidental take authorizations only after providing the public with an opportunity for review and comment. NMFS is requesting comments on all aspects of the proposed rule, and specifically requests comment on the proposed acoustic criteria and thresholds. The acoustic criteria for non-impulse and impulse sounds are discussed below.

Non-Impulse Acoustic Criteria

NMFS utilizes three acoustic criteria for non-impulse sounds: PTS (injury—Level A Harassment), TTS (Level B Harassment), and behavioral harassment (Level B Harassment). Because the TTS and PTS criteria are derived similarly and the PTS criteria were extrapolated from the TTS data, the TTS and PTS acoustic criteria will be presented first, before the behavioral criteria.

For more information regarding these criteria, please see the Navy's DEIS/OEIS for AFTT.

Level B Harassment Threshold (TTS)

Behavioral disturbance, acoustic masking, and TTS are all considered Level B Harassment. Marine mammals would usually be behaviorally disturbed at lower received levels than those at which they would likely sustain TTS, so the levels at which behavioral disturbance are likely to occur is considered the onset of Level B Harassment. The behavioral responses of marine mammals to sound are variable, context specific, and, therefore, difficult to quantify (see Risk Function section, below). Alternately, TTS is a physiological effect that has been studied and quantified in laboratory conditions. Because data exist to support an estimate of the received levels at which marine mammals will incur TTS, NMFS uses an acoustic criteria to estimate the number of marine mammals that might sustain TTS. TTS is a subset of Level B Harassment (along with sub-TTS behavioral harassment) and we are not specifically required to estimate those numbers; however, the more specifically we can estimate the affected marine mammal responses, the better the analysis.

Level A Harassment Threshold (PTS)

For acoustic effects, because the tissues of the ear appear to be the most susceptible to the physiological effects of sound, and because threshold shifts tend to occur at lower exposures than other more serious auditory effects, NMFS has determined that PTS is the best indicator for the smallest degree of injury that can be measured. Therefore, the acoustic exposure associated with onset-PTS is used to define the lower limit of Level A harassment.

PTS data do not currently exist for marine mammals and are unlikely to be obtained due to ethical concerns. However, PTS levels for these animals may be estimated using TTS data from marine mammals and relationships between TTS and PTS that have been discovered through study of terrestrial mammals.

We note here that behaviorally mediated injuries (such as those that have been hypothesized as the cause of some beaked whale strandings) could potentially occur in response to received levels lower than those believed to directly result in tissue damage. As mentioned previously, data to support a quantitative estimate of these potential effects (for which the exact mechanism is not known and in which factors other than received level may play a significant role) does not exist. However, based on the number of years (more than 60) and number of hours of MFAS per year that the U.S. (and other countries) has operated compared to the reported (and verified) cases of associated marine mammal strandings, NMFS believes that the probability of these types of injuries is very low. Tables 13 and 14 provide a summary of non-impulsive and impulsive thresholds to TTS and PTS for marine mammals. A detailed explanation of how these thresholds were derived is provided in the AFTT DEIS/OEIS Criteria and Thresholds Technical Report (*http://aftteis.com/DocumentsandReferences/AFTT Documents/SupportingTechnical Documents.aspx*) and summarized in Chapter 6 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

TABLE 13—ONSET TTS AND PTS THRESHOLDS FOR NON-IMPULSE SOUND

Group	Species	Onset TTS	Onset PTS
Low-Frequency Cetaceans	All mysticetes	178 dB re 1μPa²-sec(LF_{II})	198 dB re 1μPa²-sec(LF_{II}).
Mid-Frequency Cetaceans	Most delphinids, beaked whales, medium and large toothed whales.	178 dB re 1μPa²-sec(MF_{II})	198 dB re 1μPa²-sec(MF_{II}).
High-Frequency Cetaceans	Porpoises, Kogia spp.	152 dB re 1μPa²-sec(HF_{II})	172 dB re 1μPa²-secSEL (HF_{II}).
Phocidae In-water	Harbor, Gray, Bearded, Harp, Hooded, and Ringed seals.	183 dB re 1μPa²-sec(P_{WI})	197 dB re 1μPa²-sec(P_{WI}).

TABLE 14—IMPULSIVE SOUND EXPLOSIVE CRITERIA AND THRESHOLDS FOR PREDICTING ONSET INJURY AND MORTALITY

Group	Species	Onset TTS	Onset PTS	Onset GI tract injury	Onset slight lung	Onset mortality (1% mortality)
Low-frequency Cetaceans.	All mysticetes	172 dB SEL (LF_{II}) or 224 dB Peak SPL.	187 dB SEL (LF_{II}) or 230 dB Peak SPL.	237 dB SPL (unweighted)	Equation 1.	Equation 2.
Mid-frequency Cetaceans.	Most delphinids, medium and large toothed whales.	172 dB SEL (MF_{II}) or 224 dB Peak SPL.	187 dB SEL (MF_{II}) or 230 dB Peak SPL.			
High-frequency Cetaceans.	Porpoises and *Kogia* spp..	146 dB SEL (HF_{II}) or 195 dB Peak SPL.	161 dB SEL (HF_{II}) or 201dB Peak SPL.			

TABLE 14—IMPULSIVE SOUND EXPLOSIVE CRITERIA AND THRESHOLDS FOR PREDICTING ONSET INJURY AND MORTALITY—Continued

Group	Species	Onset TTS	Onset PTS	Onset GI tract injury	Onset slight lung	Onset mortality (1% mortality)
Phocidae	Harbor, Gray, Bearded, Harp, Hooded, and Ringed seals.	177 dB SEL (P_{WI}) or 212 dB Peak SPL.	192 dB SEL (P_{WI}) or 218 dB Peak SPL.			

Equation 1:

$= 39.1M^{1/3} (1+[D_{Rm}/10.081])^{1/2}$ Pa-sec

Equation 2:

$= 91.4M^{1/3} (1+[D_{Rm}/10.081])^{1/2}$ Pa-sec

Where:

M = mass of the animals in kg.

D_{Rm} = depth of the receiver (animal) in meters.

SPL = sound pressure level.

Level B Harassment Risk Function (Behavioral Harassment)

In 2006, NMFS issued the first MMPA authorization to allow the take of marine mammals incidental to MFAS (to the Navy for RIMPAC). For that authorization, NMFS used 173 dB SEL as the criterion for the onset of behavioral harassment (Level B Harassment). This type of single number criterion is referred to as a step function, in which (in this example) all animals estimated to be exposed to received levels above 173 dB SEL would be predicted to be taken by Level B Harassment and all animals exposed to less than 173 dB SEL would not be taken by Level B Harassment. As mentioned previously, marine mammal behavioral responses to sound are highly variable and context specific (affected by differences in acoustic conditions; differences between species and populations; differences in gender, age, reproductive status, or social behavior; or the prior experience of the individuals), which does not support the use of a step function to estimate behavioral harassment.

Unlike step functions, acoustic risk continuum functions (which are also called ''exposure-response functions,'' ''dose-response functions,'' or ''stress-response functions'' in other risk assessment contexts) allow for probability of a response that NMFS would classify as harassment to occur over a range of possible received levels (instead of one number) and assume that the probability of a response depends first on the ''dose'' (in this case, the received level of sound) and that the probability of a response increases as the ''dose'' increases (see Figures 6–5 and 6–6 in the LOA application). In January 2009, NMFS issued three final rules governing the incidental take of marine mammals (within Navy's HRC, SOCAL, and Atlantic Fleet Active Sonar Training (AFAST)) that used a risk continuum to estimate the percent of marine mammals exposed to various levels of MFAS that would respond in a manner NMFS considers harassment.

The Navy and NMFS have previously used acoustic risk functions to estimate the probable responses of marine mammals to acoustic exposures for other training and research programs. Examples of previous application include the Navy FEISs on the SURTASS LFA sonar (U.S. Department of the Navy, 2001c); the North Pacific Acoustic Laboratory experiments conducted off the Island of Kauai (Office of Naval Research, 2001), and the Supplemental EIS for SURTASS LFA sonar (U.S. Department of the Navy, 2007d). As discussed earlier, factors other than received level (such as distance from or bearing to the sound source) can affect the way that marine mammals respond; however, data to support a quantitative analysis of those (and other factors) do not currently exist. NMFS will continue to modify these criteria as new data that meet NMFS standards of quality become available and can be appropriately and effectively incorporated.

The particular acoustic risk functions developed by NMFS and the Navy (see Figures 6–5 and 6–6 in the LOA application) estimate the probability of behavioral responses to MFAS/HFAS (interpreted as the percentage of the exposed population) that NMFS would classify as harassment for the purposes of the MMPA given exposure to specific received levels of MFAS/HFAS. The mathematical function (below) underlying this curve is a cumulative probability distribution adapted from a solution in Feller (1968) and was also used in predicting risk for the Navy's SURTASS LFA MMPA authorization as well.

$$R = \frac{1 - \left(\frac{L-B}{K}\right)^{-A}}{1 - \left(\frac{L-B}{K}\right)^{-2A}}$$

Where:

R = Risk (0–1.0)

L = Received level (dB re: 1 µPa)

B = Basement received level = 120 dB re: 1 µPa

K = Received level increment above B where 50-percent risk = 45 dB re: 1 µPa

A = Risk transition sharpness parameter = 10 (odontocetes and pinnipeds) or 8 mysticetes)

Detailed information on the above equation and its parameters is available in the AFTT DEIS/OEIS and previous Navy documents listed above.

The inclusion of a special behavioral response criterion for beaked whales of the family Ziphiidae is new to these criteria. It has been speculated for some time that beaked whales might have unusual sensitivities to sonar sound due to their likelihood of stranding in conjunction with MFAS use, even in areas where other species were more abundant (D'Amico *et al.* 2009), but there were not sufficient data to support a separate treatment for beaked whales until recently. With the recent publication of results from Blainville's beaked whale monitoring and experimental exposure studies on the instrumented Atlantic Undersea Test and Evaluation Center range in the Bahamas (McCarthy *et al.* 2011; Tyack *et al.* 2011), there are now statistically strong data suggesting that beaked whales tend to avoid both actual naval MFAS in real anti-submarine training scenarios as well as sonar-like signals and other signals used during controlled sound exposure studies in the same area. An unweighted 140 dB re 1 µPa sound pressure level threshold has been adopted by the Navy for takes of all beaked whales (family: Ziphiidae).

If more than one impulsive event involving explosives (i.e., not pile driving) occurs within any given 24-hour period within a training or testing event, criteria are applied to predict the number of animals that may be taken by

Level B Harassment. For multiple impulsive events (with the exception of pile driving) the behavioral threshold used in this analysis is 5 dB less than the TTS onset threshold (in sound exposure level). This value is derived from observed onsets of behavioral response by test subjects (bottlenose dolphins) during non-impulse TTS testing (Schlundt *et al.* 2000). Some multiple impulsive events, such as certain naval gunnery exercises, may be treated as a single impulsive event because a few explosions occur closely spaced within a very short period of time (a few seconds). For single impulses at received sound levels below hearing loss thresholds, the most likely behavioral response is a brief alerting or orienting response. Since no further sounds follow the initial brief impulses, Level B take in the form of behavioral harassment beyond that associated with potential TTS would not be expected to occur. This reasoning was applied to previous shock trials (63 FR 66069; 66 FR 22450; 73 FR 43130). Explosive criteria and thresholds are summarized in Table 6–3 in the LOA application.

Since impulse events can be quite short, it may be possible to accumulate multiple received impulses at sound pressure levels considerably above the energy-based criterion and still not be considered a behavioral take. The Navy treats all individual received impulses as if they were one second long for the purposes of calculating cumulative sound exposure level for multiple impulse events. For example, five air gun impulses, each 0.1 second long, received at 178 dB sound pressure level would equal a 175 dB sound exposure level, and would not be predicted as leading to a take. However, if the five 0.1 second pulses are treated as a 5 second exposure, it would yield an adjusted value of approximately 180 dB, exceeding the threshold. For impulses associated with explosions that have durations of a few microseconds, this assumption greatly overestimates effects based on sound exposure level metrics such as TTS and PTS and behavioral responses. Appropriate weighting values will be applied to the received impulse in one-third octave bands and the energy summed to produce a total weighted sound exposure level value. For impulsive behavioral criteria, the Navy's new weighting functions (detailed in the LOA application) are applied to the received sound level before being compared to the threshold.

TABLE 15—BEHAVIORAL THRESHOLDS FOR IMPULSIVE SOUND

Hearing group	Impulsive behavioral threshold for >2 pulses/24 hrs
Low-Frequency Cetaceans	167 dB SEL (LF_{II}).
Mid-Frequency Cetaceans	167 dB SEL (MF_{II}).
High-Frequency Cetaceans	141 dB SEL (HF_{II}).
Phocid Seals (in water)	172 dB SEL (P_{WI}).

Existing NMFS criteria was applied to sounds generated by pile driving and airguns (Table 16).

TABLE 16—THRESHOLDS FOR PILE DRIVING AND AIRGUNS

Species groups	Underwater vibratory pile driving criteria (sound pressure level, dB re 1 μPa)		Underwater impact pile driving and airgun criteria (sound pressure level, dB re 1 μPa)	
	Level A injury threshold	Level B disturbance threshold	Level A injury threshold	Level B disturbance threshold
Cetaceans (whales, dolphins, porpoises)	180 dB rms	120 dB rms	180 dB rms	160 dB rms.
Pinnipeds (seals)	190 dB rms	120 dB rms	190 dB rms	160 dB rms.

Quantitative Modeling for Impulsive and Non-Impulsive Sound

The Navy performed a quantitative analysis to estimate the number of marine mammals that could be harassed by acoustic sources or explosives used during Navy training and testing activities. Inputs to the quantitative analysis included marine mammal density estimates; marine mammal depth occurrence distributions; oceanographic and environmental data; marine mammal hearing data; and criteria and thresholds for levels of potential effects. The quantitative analysis consists of computer-modeled estimates and a post-model analysis to determine the number of potential mortalities and harassments. The model calculates sound energy propagation from sonars, other active acoustic sources, and explosives during naval activities; the sound or impulse received by animat dosimeters representing marine mammals distributed in the area around the modeled activity; and whether the sound or impulse received by a marine mammal exceeds the thresholds for effects. The model estimates are then further analyzed to consider animal avoidance and implementation of mitigation measures, resulting in final estimates of effects due to Navy training and testing. This process results in a reduction of take numbers and is detailed in Chapter 6 (section 6.1.5) of the Navy's LOA application.

A number of computer models and mathematical equations can be used to predict how energy spreads from a sound source (e.g., sonar or underwater detonation) to a receiver (e.g., dolphin or sea turtle). Basic underwater sound models calculate the overlap of energy and marine life using assumptions that account for the many variables, and often unknown factors that can greatly influence the result. Assumptions in previous and current Navy models have intentionally erred on the side of overestimation when there are unknowns or when the addition of other variables was not likely to substantively change the final analysis. For example,

because the ocean environment is extremely dynamic and information is often limited to a synthesis of data gathered over wide areas and requiring many years of research, known information tends to be an average of a seasonal or annual variation. The Equatorial Pacific El Nino disruption of the ocean-atmosphere system is an example of dynamic change where unusually warm ocean temperatures are likely to redistribute marine life and alter the propagation of underwater sound energy. Previous Navy modeling therefore made some assumptions indicative of a maximum theoretical propagation for sound energy (such as a perfectly reflective ocean surface and a flat seafloor). More complex computer models build upon basic modeling by factoring in additional variables in an effort to be more accurate by accounting for such things as bathymetry and an animal's likely presence at various depths.

The Navy has developed a set of data and new software tools for quantification of estimated marine mammal impacts from Navy activities. This new approach is the resulting evolution of the basic model previously used by the Navy and reflects a more complex modeling approach as described below. Although this more complex computer modeling approach accounts for various environmental factors affecting acoustic propagation, the current software tools do not consider the likelihood that a marine mammal would attempt to avoid repeated exposures to a sound or avoid an area of intense activity where a training or testing event may be focused. Additionally, the software tools do not consider the implementation of mitigation (e.g., stopping sonar transmissions when a marine mammal is within a certain distance of a ship or range clearance prior to detonations). In both of these situations, naval activities are modeled as though an activity would occur regardless of proximity to marine mammals and without any horizontal movement by the animal away from the sound source or human activities (e.g., without accounting for likely animal avoidance). Therefore, the final step of the quantitative analysis of acoustic effects is to consider the implementation of mitigation and the possibility that marine mammals would avoid continued or repeated sound exposures.

The quantified results of the marine mammal acoustic effects analysis presented in the Navy's LOA application differ from the quantified results presented in the AFTT DEIS/OEIS. Presentation of the results in this new manner for MMPA, ESA, and other regulatory analyses is well within the framework of the previous NEPA analyses presented in the DEIS. The differences are due to three main factors: (1) Changes to the tempo or location of certain proposed activities; (2) refinement to the modeling inputs for training and testing; and (3) additional post-model analysis of acoustic effects to include animal avoidance of repeated sound sources, avoidance of areas of activity before use of a sound source or explosive by sensitive species, and implementation of mitigation. The Navy's tempo and location of certain proposed activities has been modified in response to new training and testing requirements developed in response to the ever-evolving security environment requiring an increased use of high frequency mine detection sonar for training and testing, an increased use of mid-frequency ASW sonobuoys for testing, relocation of countermeasure testing from NSWC Panama City to GOMEX, and the elimination of the Submarine Navigation Training at Kings Bay, GA. The proposal also includes refinement of the modeling inputs, including the addition of modeling results for Surface to Surface MISSILEX, which was analyzed but not modeled in the DEIS, and the elimination of over-calculation for several activities which occur only once every five years. This additional post-model analysis of acoustic effects was performed to clarify potential misunderstandings of the numbers presented as modeling results in the AFTT DEIS/OEIS. Some comments indicated that the readers believed the acoustic effects to marine mammals presented in the DEIS/OEIS were representative of the actual expected effects, although the AFTT DEIS/OEIS did not account for animal avoidance of an area prior to commencing sound-producing activities, animal avoidance of repeated explosive noise exposures, and the protections due to standard Navy mitigations. Therefore, the numbers presented in Navy's LOA application, which will be reflected in the AFTT FEIS/OEIS, have been refined to better quantify the expected effects by fully accounting for animal avoidance or movement and implementation of standard Navy mitigations. With the application of the post-modeling assessment process, the net result of these changes is an overall decrease in takes by mortality and Level A takes within the LOA application compared with the DEIS, a net reduction in Level B takes for training, and a net increase in Level B takes for testing. The Navy has advised NMFS that all comments received on the proposed rule that address (1) changes to the tempo or location of certain proposed activities; (2) refinement to the modeling inputs for training and testing; and (3) additional post-model analysis of acoustic effects and implementation of mitigation, will be reviewed and addressed by the Navy in its FEIS/OEIS for AFTT.

The steps of the quantitative analysis of acoustic effects, the values that went into the Navy's model, and the resulting ranges to effects are detailed in Chapter 6 of the Navy's LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

Take Request

The AFTT DEIS/OEIS considered all training and testing activities proposed to occur in the Study Area that have the potential to result in the MMPA defined take of marine mammals. The stressors associated with these activities included the following:

- Acoustic (sonar and other active non-impulse sources, explosives, pile driving, swimmer defense airguns, weapons firing, launch and impact noise, vessel noise, aircraft noise)
- Energy (electromagnetic devices)
- Physical disturbance or strikes (vessels, in-water devices, military expended materials, seafloor devices)
- Entanglement (fiber optic cables, guidance wires, parachutes)
- Ingestion (munitions, military expended materials other than munitions)

The Navy determined, and NMFS agrees, that three stressors could potentially result in the incidental taking of marine mammals from training and testing activities within the Study Area: (1) Non-impulsive stressors (sonar and other active acoustic sources), (2) impulsive stressors (explosives, pile driving and removal), and (3) vessel strikes. Non-impulsive and impulsive stressors have the potential to result in incidental takes of marine mammals by harassment, injury, or mortality (explosives only). Vessel strikes have the potential to result in incidental take from direct injury and/or mortality.

Training Activities—Based on the Navy's model and post-model analysis (described in detail in Chapter 6 of its LOA application), Table 17 summarizes the Navy's take request for training activities for an annual maximum year (a notional 12-month period when all annual and non-annual events would occur) and the summation over a 5-year period (with consideration of the varying schedule of non-annual activities). Table 18 summarizes the

Navy's take request (Level A and Level B harassment) for training activities by species.

While the Navy does not anticipate any mortalities would occur from training activities involving explosives, the Navy requests annual authorization for take by mortality of up to 17 small odontocetes (i.e., dolphins) to include any combination of such species that may be present in the Study Area. In addition, the Navy does not anticipate any beaked whale strandings or mortalities from sonar and other active sources, but in order to account for unforeseen circumstances that could lead to such effects the Navy requests the annual take, by mortality, of up to 10 beaked whales in any given year, and no more than 10 beaked whales over the 5-year LOA period, as part of training activities.

Vessel strike to marine mammals is not associated with any specific training activity but rather a limited, sporadic, and accidental result of Navy vessel movement within the Study Area. In order to account for the accidental nature of vessel strikes to large whales in general, and the potential risk from any vessel movement within the Study Area, the Navy requests take authorization in the event a Navy vessel strike does occur while conducting training. The Navy's take authorization request is based on the probabilities of whale strikes suggested by the data from NMFS Northeast Science Center, NMFS Southeast Science Center, the Navy, and the calculations detailed in Chapter 6 of the Navy's LOA application. The number of Navy and commercial whale strikes for which the species has been positively identified suggests that the probability of striking a humpback whale in the Study Area is greater than striking other species. However, since species identification has not been possible in most vessel strike cases, the Navy cannot quantifiably predict what species may be taken. Therefore, the Navy seeks take authorization by mortality from vessel strike for any combined number of marine mammal species to include fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, sperm whale, Blainville's beaked whale, Cuvier's beaked whale, Gervais' beaked whale, and unidentified whale species. The Navy requests takes of large marine mammals over the course of the 5-year regulations from training activities as discussed below:

- The take by vessel strike during training activities in any given year of no more than three marine mammals total of any combination of species including fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, sperm whale, Blainville's beaked whale, Cuvier's beaked whale, Gervais' beaked whale, and unidentified whale species.
- The take by vessel strike of no more than 10 marine mammals from training activities over the course of the five years of the AFTT regulations.

Over a period of 18 years from 1995 to 2012 there have been a total of 19 Navy vessel strikes in the Study Area. Eight of the strikes resulted in a confirmed death; but in 11 of the 19 strikes, the fate of the animal was unknown. It is possible that some of the 11 reported strikes resulted in recoverable injury or were not marine mammals at all, but another large marine species (e.g., basking shark). However, it is prudent to consider that all of the strikes could have resulted in the death of a marine mammal. The maximum number of strikes in any given year was three strikes, which occurred in 2001 and 2004. The highest average number of strikes over any five year period was two strikes per year from 2001 to 2005. The average number of strikes for the entire 18-year period is 1.055 strikes per year. Since the implementation of the Navy's Marine Species Awareness Training in 2007, strikes in the Study Area have decreased to an average of 0.5 per year. Over the last five years on the east coast, the Navy was involved in two strikes, with no confirmed marine mammal deaths as a result of the vessel strike. Also as discussed in Chapter 6 of the Navy's LOA application, the probability of striking as many as two large whales in a single year in the AFTT Study Area is only 19 percent.

TABLE 17—SUMMARY OF ANNUAL AND 5-YEAR TAKE REQUESTS FOR TRAINING ACTIVITIES

MMPA category	Source	Annual authorization sought	5-Year authorization sought
		Training activities [4]	Training activities
Mortality	Impulsive	17 mortalities applicable to any small odontocete in any given year.	85 mortalities applicable to any small odontocete over 5 years.
	Unspecified	10 mortalities to beaked whales in any given year. [1]	10 mortalities to beaked whales over 5 years. [1]
	Vessel strike	No more than three large whale mortalities in any given year. [2]	No more than 10 large whale mortalities over 5 years. [2]
Level A	Impulsive and Non-Impulsive.	351	1,753.
Level B	Impulsive and Non-Impulsive.	2,053,473	10,263,631.

[1] Ten Ziphiidae beaked whale to include any combination of Blainville's beaked whale, Cuvier's beaked whale, Gervais' beaked whale, northern bottlenose whale, and Sowerby's beaked whale, and True's beaked whale (not to exceed 10 beaked whales total over the 5-year length of requested authorization).

[2] *For Training:* Because of the number of incidents in which the species of the stricken animal has remained unidentified, Navy cannot predict that proposed takes (either 3 per year or the 10 over the course of 5 years) will be of any particular species, and therefore seeks take authorization for any combination of large whale species (e.g., fin whale, humpback whale, minke whale, sei whale, Bryde's whale, sperm whale, blue whale, Blainville's beaked whale, Cuvier's beaked whale, Gervais' beaked whale, and unidentified whale species), excluding the North Atlantic right whale.

TABLE 18—SPECIES-SPECIFIC TAKE REQUESTS FROM IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TRAINING ACTIVITIES

Species	Annual [1]		Total over 5-year period	
	Level B	Level A	Level B	Level A
Mysticetes:				

TABLE 18—SPECIES-SPECIFIC TAKE REQUESTS FROM IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TRAINING ACTIVITIES—Continued

Species	Annual[1]		Total over 5-year period	
	Level B	Level A	Level B	Level A
Blue Whale *	147	0	735	0
Bryde's Whale	955	0	4,775	0
Minke Whale	60,402	16	302,010	80
Fin Whale *	4,490	1	22,450	5
Humpback Whale *	1,643	1	8,215	5
North Atlantic Right Whale *	112	0	560	0
Sei Whale *	10,188	1	50,940	5
Odontocetes—Delphinids:				
Atlantic Spotted Dolphin	177,570	12	887,550	60
Atlantic White-Sided Dolphin	31,228	3	156,100	15
Bottlenose Dolphin	284,728	8	1,422,938	40
Clymene Dolphin	19,588	1	97,938	5
Common Dolphin	465,014	17	2,325,022	85
False Killer Whale	713	0	3,565	0
Fraser's Dolphin	2,205	0	11,025	0
Killer Whale	14,055	0	70,273	0
Melon-Headed Whale	20,876	0	104,380	0
Pantropical Spotted Dolphin	70,968	1	354,834	5
Pilot Whale	101,252	3	506,240	15
Pygmy Killer Whale	1,487	0	7,435	0
Risso's Dolphin	238,528	3	1,192,618	15
Rough Toothed Dolphin	1,059	0	5,293	0
Spinner Dolphin	20,414	0	102,068	0
Striped Dolphin	224,305	7	1,121,511	35
White-Beaked Dolphin	1,613	0	8,027	0
Odontocetes—Sperm Whales:				
Sperm Whale *	14,749	0	73,743	0
Odontocetes—Beaked Whales:				
Blainville's Beaked Whale	28,179	0	140,893	0
Cuvier's Beaked Whale	34,895	0	174,473	0
Gervais' Beaked Whale	28,255	0	141,271	0
Northern Bottlenose Whale	18,358	0	91,786	0
Sowerby's Beaked Whale	9,964	0	49,818	0
True's Beaked Whale	16,711	0	83,553	0
Odontocetes—Kogia Species and Porpoises:				
Kogia spp.	5,090	15	25,448	75
Harbor Porpoise	142,811	262	711,727	1,308
Phocid Seals:				
Bearded Seal	0	0	0	0
Gray Seal	82	0	316	0
Harbor Seal	83	0	329	0
Harp Seal	4	0	12	0
Hooded Seal	5	0	25	0
Ringed Seal **	0	0	0	0

[1] Predictions shown are for the theoretical maximum year, which would consist of all annual training and one Civilian Port Defense activity. Civilian Port Defense training would occur biennially.

* ESA-Listed Species; ** ESA-proposed; PTS: Permanent threshold shift; TTS: Temporary threshold shift.

Testing Activities

Based on the Navy's model and post-model analysis (described in detail in Chapter 6 of its LOA application), Table 19 summarizes the Navy's take request for testing activities for an annual maximum year (a notional 12-month period when all annual and non-annual events would occur) and the summation over a 5-year period (with consideration of the varying schedule of non-annual activities). Table 20 summarizes the Navy's take request (Level A and Level B harassment) for testing activities by species.

The Navy requests annual authorization for take by mortality of up to 11 small odontocetes (i.e., dolphins) to include any combination of such species with potential presence in the Study Area as part of testing activities using impulsive sources (excluding ship shock trials). Over the 5-year periods of the rule, the Navy requests authorization for take by mortality of up to 25 marine mammals incidental to ship shock trials (10 for aircraft carrier trials and 15 for guided missile destroyer and Littoral Combat Ship trials).

The Navy does not anticipate vessel strikes of marine mammals would occur during testing activities in the Study Area in any given year. Most testing conducted in the Study Area that involves surface ships is conducted on Navy ships during training exercises. Therefore, the vessel strike take request for training activities covers those activities. For the smaller number of testing activities not conducted in conjunction with fleet training, the Navy requests a smaller number of takes resulting incidental to vessel strike. However, in order to account for the accidental nature of vessel strikes to large whales in general, and potential risk from any vessel movement within the Study Area, the Navy is seeking take authorization in the event a Navy vessel strike does occur while conducting

testing during the five year period of NMFS' final authorization as follows:

- The take by vessel strike during testing activities in any given year of no more than one marine mammal of any of the following species including fin whale, blue whale, humpback whale, Bryde's whale, sei whale, minke whale, sperm whale Blainville's beaked whale, Cuvier's beaked whale, Gervais' beaked whale, and unidentified whale species.
- The take by vessel strike of no more than one large whale from testing activities over the course of the 5-year regulations.

TABLE 19—SUMMARY OF ANNUAL AND 5-YEAR TAKE REQUESTS FOR TESTING ACTIVITIES

[Excluding ship shock trials]

MMPA category	Source	Annual authorization sought	5-Year authorization sought
		Testing activities [3]	Testing activities [3]
Mortality	Impulsive	11 mortalities applicable to any small odontocete in any given year [3].	55 mortalities applicable to any small odontocete over 5 years.
	Unspecified	None	None.
	Vessel strike	No more than one large whale mortality in any given year.[2]	No more than one large whale mortality over 5 years. [2]
Level A	Impulsive and non-Impulsive.	375	1,735.
Level B	Impulsive and non-Impulsive.	2,441,640	11,559,236.

[1] Ten Ziphiidae beaked whale to include any combination of Blainville's beaked whale, Cuvier's beaked whale, Gervais' beaked whale, northern bottlenose whale, and Sowerby's beaked whale, and True's beaked whale (not to exceed 10 beaked whales total over the 5-year length of requested authorization).

[2] *For Testing:* Because of the number of incidents in which the species of the stricken animal has remained unidentified, the Navy cannot predict that the proposed takes (one over the course of 5 years) will be of any particular species, and therefore seeks take authorization for any large whale species (e.g., fin whale, humpback whale, minke whale, sei whale, Bryde's whale, sperm whale, blue whale, Blainville's beaked whale, Cuvier's beaked whale, Gervais' beaked whale, and unidentified whale species), excluding the North Atlantic right whale.

[3] Excluding ship shock trials.

TABLE 20—SPECIES-SPECIFIC TAKE REQUESTS FROM IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TESTING ACTIVITIES

Species	Annual [1,2]		Total over 5-year period	
	Level B	Level A	Level B	Level A
Mysticetes:				
Blue Whale*	18	0	82	0
Bryde's Whale	64	0	304	0
Minke Whale	7,756	15	34,505	28
Fin Whale*	599	0	2,784	0
Humpback Whale*	200	0	976	0
North Atlantic Right Whale*	87	0	395	0
Sei Whale*	796	0	3,821	0
Odontocetes—Delphinids:				
Atlantic Spotted Dolphin	24,429	1,854	104,647	1,964
Atlantic White-Sided Dolphin	10,330	147	50,133	166
Bottlenose Dolphin	33,708	149	146,863	190
Clymene Dolphin	2,173	80	10,169	87
Common Dolphin	52,173	2,203	235,493	2,369
False Killer Whale	109	0	497	0
Fraser's Dolphin	171	0	791	0
Killer Whale	1,540	2	7,173	2
Melon-Headed Whale	1,512	28	6,950	30
Pantropical Spotted Dolphin	7,985	71	38,385	92
Pilot Whale	15,701	153	74,614	163
Pygmy Killer Whale	135	3	603	3
Risso's Dolphin	24,356	70	113,682	89
Rough Toothed Dolphin	138	0	618	0
Spinner Dolphin	2,862	28	13,208	34
Striped Dolphin	21,738	2,599	97,852	2,751
White-Beaked Dolphin	1,818	3	8,370	3
Odontocetes—Sperm Whales:				
Sperm Whale*	1,786	5	8,533	6
Odontocetes—Beaked Whales:				
Blainville's Beaked Whale	4,753	3	23,561	3
Cuvier's Beaked Whale	6,144	1	30,472	1
Gervais' Beaked Whale	4,764	4	23,388	4
Northern Bottlenose Whale	12,096	5	60,409	6
Sowerby's Beaked Whale	2,698	0	13,338	0
True's Beaked Whale	3,133	1	15,569	1
Odontocetes—Kogia Species and Porpoises:				

TABLE 20—SPECIES-SPECIFIC TAKE REQUESTS FROM IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TESTING ACTIVITIES—Continued

Species	Annual [1,2]		Total over 5-year period	
	Level B	Level A	Level B	Level A
Kogia spp.	1,163	12	5,536	36
Harbor Porpoise	2,182,872	216	10,358,300	1,080
Phocid Seals:				
Bearded Seal	33	0	161	0
Gray Seal	3,293	14	14,149	46
Harbor Seal	8,668	78	38,860	330
Harp Seal	3,997	14	16,277	30
Hooded Seal	295	0	1,447	0
Ringed Seal**	359	0	1,795	0

[1] Predictions shown are for the theoretical maximum year, which would consist of all annual testing; one CVN ship shock trial and two other ship shock trials (DDG or LCS); and Unmanned Underwater Vehicle (UUV) Demonstrations at each of three possible sites. One CVN, one DDG, and two LCS ship shock trials could occur within the 5-year period. Typically, one UUV Demonstration would occur annually at one of the possible sites.

[2] Ship shock trials could occur in either the VACAPES (year-round, except a CVN ship shock trial would not occur in the winter) or JAX (spring, summer, and fall only) Range Complexes. Actual location and time of year of a ship shock trial would depend on platform development, site availability, and availability of ship shock trial support facilities and personnel. For the purpose of requesting takes, the maximum predicted effects to a species for either location in any possible season are included in the species' total predicted effects.

* ESA-Listed Species; ** ESA-proposed; PTS: Permanent threshold shift; TTS: Temporary threshold shift.

For one aircraft carrier (CVN) ship shock trial, the Navy requests a maximum of 6,591 takes by Level A harassment and 4,607 takes by Level B harassment over the 5-year LOA period. Based on no observed mortalities during previous ship shock trials, the Navy does not anticipate the mortalities predicted by the acoustic analysis, but requests authorization for take by mortality of up to 10 small odontocetes (any combination of species known to be present in the Study Area).

For the guided missile destroyer (DDG) and two Littoral Combat Ship (LCS) ship shock trials (three events total), the Navy requests a maximum of 1,188 takes by Level A harassment and 867 takes by Level B harassment over the course of the 5-year LOA period. Based on no observed mortalities during previous ship shock trials, the Navy does not anticipate the mortalities predicted by the acoustic analysis, but requests authorization for take by mortality of up to 15 small odontocetes (any combination of species known to be present in the Study Area).

TABLE 21—SUMMARY OF ANNUAL AND 5-YEAR TAKE REQUEST FOR AFTT SHIP SHOCK TRIALS

MMPA category	Annual authorization sought [1]	5-Year authorization sought
Mortality	20 mortalities applicable to any small odontocete in any given year.	25 mortalities applicable to any small odontocete over 5 years.
Level A	7,383	7,779.
Level B	5,185	5,474.

[1] Up to three ship shock trials could occur in any one year (one CVN and two DDG/LCS ship shock trials), with one CVN, one DDG, and two LCS ship shock trials over the 5-year period. Ship shock trials could occur in either the VACAPES (year-round, except a CVN ship shock trial would not occur in the winter) or JAX (spring, summer, and fall only) Range Complexes. Actual location and time of year of a ship shock trial would depend on platform development, site availability, and availability of ship shock trial support facilities and personnel. For the purpose of requesting Level A and Level B takes, the maximum predicted effects to a species for either location in any possible season are included in the species' total predicted effects.

Marine Mammal Habitat

The Navy's proposed training and testing activities could potentially affect marine mammal habitat through the introduction of sound into the water column, impacts to the prey species of marine mammals, bottom disturbance, or changes in water quality. Each of these components was considered in the AFTT DEIS/OEIS and was determined by the Navy to have no effect on marine mammal habitat. Based on the information below and the supporting information included in the AFTT DEIS/OEIS, NMFS has preliminarily determined that the proposed training and testing activities would not have adverse or long-term impacts on marine mammal habitat.

Important Marine Mammal Habitat

The only ESA-listed marine mammal with designated critical habitat within the AFTT Study Area is for the North Atlantic right whale. Three critical habitats—Cape Cod Bay, Great South Channel, and the coastal waters of Georgia and Florida—were designated by NMFS in 1994 (59 FR 28805, June 3, 1994). Recently, in a response to a 2009 petition to revise North Atlantic right whale critical habitat, NMFS stated that the revision is appropriate and the ongoing rulemaking process would continue (75 FR 61690, October 6, 2010).

New England waters (where the Cape Cod Bay and Great South Channel critical habitats are located) are an important feeding habitat for right whales, which feed primarily on copepods in this area (largely of the genera *Calanus* and *Pseudocalanus*). Research suggests that right whales must locate and exploit extremely dense patches of zooplankton to feed efficiently (Mayo and Marx, 1990). These dense zooplankton patches are likely a primary characteristic of the spring, summer and fall right whale habitats (Kenney *et al.,* 1986; Kenney *et al.,* 1995). While feeding in the coastal

waters off Massachusetts has been better studied than in other areas, right whale feeding has also been observed on the margins of Georges Bank, in the Great South Channel, in the Gulf of Maine, in the Bay of Fundy, and over the Scotian Shelf. The characteristics of acceptable prey distribution in these areas are beginning to emerge (Baumgartner and Mate, 2003; Baumgartner and Mate, 2005). NMFS and Provincetown Center for Coastal Studies aerial surveys during springs of 1999–2006 found right whales along the northern edge of Georges Bank, in the Great South Channel, in Georges Basin, and in various locations in the Gulf of Maine including Cashes Ledge, Platts Bank and Wilkinson Basin. The consistency with which right whales occur in such locations is relatively high, but these studies also highlight the high interannual variability in right whale use of some habitats.

Since 2004, consistent aerial survey efforts have been conducted during the migration and calving season (15 November to 15 April) in coastal areas of Georgia and South Carolina, to the north of currently defined critical habitat (Glass and Taylor, 2006; Khan and Taylor, 2007; Sayre and Taylor, 2008; Schulte and Taylor, 2010). Results suggest that this region may not only be part of the migratory route but also a seasonal residency area. Results from an analysis by Schick *et al.* (2009) suggest that the migratory corridor of North Atlantic right whales is broader than initially estimated and that suitable habitat exists beyond the 20 nm coastal buffer presumed to represent the primary migratory pathway (NMFS, 2008b). Results were based on data modeled from two females tagged with satellite-monitored radio tags as part of a previous study.

Three right whale observations (four individuals) were recorded during aerial surveys sponsored by the Navy in the vicinity of the planned Undersea Warfare Training Range approximately 50 mi. (80 km) offshore of Jacksonville, Florida in 2009 and 2010, including a female that was observed giving birth (Foley *et al.,* 2011). These sightings occurred well outside existing critical habitat for the right whale and suggest that the calving area may be broader than currently assumed (Foley *et al.,* 2011; U.S. Department of the Navy, 2010). Offshore (greater than 30 mi. [48.3 km]) surveys flown off the coast of northeastern Florida and southeastern Georgia from 1996 to 2001 documented 3 sightings in 1996, 1 in 1997, 13 in 1998, 6 in 1999, 11 in 2000 and 6 in 2001 (within each year, some were repeat sightings of previously recorded individuals). Several of the years that offshore surveys were flown were some of the lowest count years for calves and for numbers of right whales in the southeast recorded since comprehensive surveys in the calving grounds were initiated. Therefore, the frequency with which right whales occur in offshore waters in the southeastern United States remains unclear.

Activities involving sound or energy from sonar and other active acoustic sources will not occur or will be minimized to the maximum extent practicable in designated North Atlantic right whale critical habitat and would have no effect on the primary constituent elements (i.e., water temperature and depth in the southeast and copepods in the northeast).

Expected Effects on Habitat

Training and testing activities may introduce water quality constituents into the water column. Based on the analysis of the AFTT EIS/OEIS, military expended materials (e.g., undetonated explosive materials) would be released in quantities and at rates that would not result in a violation of any water quality standard or criteria. High-order explosions consume most of the explosive material, creating typical combustion products. For example, in the case of Royal Demolition Explosive, 98 percent of the products are common seawater constituents and the remainder is rapidly diluted below threshold effect level. Explosion by-products associated with high order detonations present no secondary stressors to marine mammals through sediment or water. However, low order detonations and unexploded ordnance present elevated likelihood of impacts on marine mammals.

Indirect effects of explosives and unexploded ordnance to marine mammals via sediment is possible in the immediate vicinity of the ordnance. Degradation products of Royal Demolition Explosive are not toxic to marine organisms at realistic exposure levels (Rosen and Lotufo 2010). Relatively low solubility of most explosives and their degradation products means that concentrations of these contaminants in the marine environment are relatively low and readily diluted. Furthermore, while explosives and their degradation products were detectable in marine sediment approximately 6–12 in. (0.15–0.3 m) away from degrading ordnance, the concentrations of these compounds were not statistically distinguishable from background beyond 3–6 ft. (1–2 m) from the degrading ordnance. Taken together, it is possible that marine mammals could be exposed to degrading explosives, but it would be within a very small radius of the explosive (1–6 ft. [0.3–2 m]).

Anthropogenic noise attributable to training and testing activities in the Study Area emanates from multiple sources including low-frequency and hull-mounted mid-frequency active sonar, high-frequency and non-hull mounted mid-frequency active sonar, and explosives and other impulsive sounds. Such sound sources include improved extended echo ranging sonobuoys; anti-swimmer grenades; mine countermeasure and neutralization activities; ordnance testing; gunnery, missile, and bombing exercises; torpedo testing, sinking exercises; ship shock trials; vessels; and aircraft. Sound produced from training and testing activities in the Study Area is temporary and transitory. The sounds produced during training and testing activities can be widely dispersed or concentrated in small areas for varying periods. Any anthropogenic noise attributed to training and testing activities in the Study Area would be temporary and the affected area would be expected to immediately return to the original state when these activities cease. Military expended materials resulting from training and testing activities could potentially result in minor long-term changes to benthic habitat. Military expended materials may be colonized over time by benthic organisms that prefer hard substrate and would provide structure that could attract some species of fish or invertebrates. Overall, the combined impacts of sound exposure, explosions, vessel strikes, and military expended materials resulting from the proposed activities would not be expected to have measurable effects on populations of marine mammal prey species.

Equipment used by the Navy within the Study Area, including ships and other marine vessels, aircraft, and other equipment, may also introduce materials into the marine environment. All equipment is properly maintained in accordance with applicable Navy or legal requirements. All such operating equipment meets federal water quality standards, where applicable.

Effects on Marine Mammal Prey

Invertebrates—Prey sources such as marine invertebrates could potentially be impacted by sound stressors as a result of the proposed activities. However, most marine invertebrates' ability to sense sounds is very limited. In most cases, marine invertebrates would not respond to impulsive and non-impulsive sounds, although they may detect and briefly respond to

nearby low-frequency sounds. These short-term responses would likely be inconsequential to invertebrate populations. Explosions and pile driving would likely kill or injure nearby marine invertebrates. Vessels also have the potential to impact marine invertebrates by disturbing the water column or sediments, or directly striking organisms (Bishop, 2008). The propeller wash (water displaced by propellers used for propulsion) from vessel movement and water displaced from vessel hulls can potentially disturb marine invertebrates in the water column and is a likely cause of zooplankton mortality (Bickel et al., 2011). The localized and short-term exposure to explosions or vessels could displace, injure, or kill zooplankton, invertebrate eggs or larvae, and macro-invertebrates. Therefore, mortality or long-term consequences for a few animals is unlikely to have measurable effects on overall stocks or populations. Long-term consequences to marine invertebrate populations would not be expected as a result of exposure to sounds or vessels in the Study Area.

Fish—If fish are exposed to explosions and impulsive sound sources, they may show no response at all or may have a behavioral reaction. Occasional behavioral reactions to intermittent explosions and impulsive sound sources are unlikely to cause long-term consequences for individual fish or populations. Animals that experience hearing loss (PTS or TTS) as a result of exposure to explosions and impulsive sound sources may have a reduced ability to detect relevant sounds such as predators, prey, or social vocalizations. It is uncertain whether some permanent hearing loss over a part of a fish's hearing range would have long-term consequences for that individual. It is possible for fish to be injured or killed by an explosion. Physical effects from pressure waves generated by underwater sounds (e.g., underwater explosions) could potentially affect fish within proximity of training or testing activities. The shock wave from an underwater explosion is lethal to fish at close range, causing massive organ and tissue damage and internal bleeding (Keevin and Hempen, 1997). At greater distance from the detonation point, the extent of mortality or injury depends on a number of factors including fish size, body shape, orientation, and species (Keevin and Hempen, 1997; Wright, 1982). At the same distance from the source, larger fish are generally less susceptible to death or injury, elongated forms that are round in cross-section are less at risk than deep-bodied forms, and fish oriented sideways to the blast suffer the greatest impact (Edds-Walton and Finneran, 2006; O'Keeffe, 1984; O'Keeffe and Young, 1984; Wiley *et al.,* 1981; Yelverton *et al.,* 1975). Species with gas-filled organs have higher mortality than those without them (Continental Shelf Associates Inc., 2004; Goertner *et al.,* 1994).

Fish not killed or driven from a location by an explosion might change their behavior, feeding pattern, or distribution. Changes in behavior of fish have been observed as a result of sound produced by explosives, with effect intensified in areas of hard substrate (Wright, 1982). Stunning from pressure waves could also temporarily immobilize fish, making them more susceptible to predation. The abundances of various fish and invertebrates near the detonation point could be altered for a few hours before animals from surrounding areas repopulate the area; however these populations would likely be replenished as waters near the detonation point are mixed with adjacent waters. Repeated exposure of individual fish to sounds from underwater explosions is not likely and most acoustic effects are expected to be short-term and localized. Long-term consequences for fish populations would not be expected.

Vessels and in-water devices do not normally collide with adult fish, most of which can detect and avoid them. Exposure of fishes is to vessel strike stressors is limited to those fish groups that are large, slow-moving, and may occur near the surface, such as sturgeon, ocean sunfish, whale sharks, basking sharks, and manta rays. With the exception of sturgeon, these species are distributed widely in offshore portions of the Study Area. Any isolated cases of a Navy vessel striking an individual could injure that individual, impacting the fitness of an individual fish. Vessel strikes would not pose a risk to most of the other marine fish groups, because many fish can detect and avoid vessel movements, making strikes rare and allowing the fish to return to their normal behavior after the ship or device passes. As a vessel approaches a fish, they could have a detectable behavioral or physiological response (e.g., swimming away and increased heart rate) as the passing vessel displaces them. However, such reactions are not expected to have lasting effects on the survival, growth, recruitment, or reproduction of these marine fish groups at the population level.

Marine Mammal Avoidance

Marine mammals may be temporarily displaced from areas where Navy training is occurring, but the area should be utilized again after the activities have ceased. Avoidance of an area can help the animal avoid further acoustic effects by avoiding or reducing further exposure. The intermittent or short duration of many activities should prevent animals from being exposed to stressors on a continuous basis. In areas of repeated and frequent acoustic disturbance, some animals may habituate or learn to tolerate the new baseline or fluctuations in noise level. While some animals may not return to an area, or may begin using an area differently due to training and testing activities, most animals are expected to return to their usual locations and behavior.

Other Expected Effects

Other sources that may affect marine mammal habitat were considered and potentially include the introduction of fuel, debris, ordnance, and chemical residues into the water column. The effects of each of these components were considered in the Navy's AFTT DEIS/OEIS. Based on the detailed review within the AFTT EIS/OEIS, there would be no effects to marine mammals resulting from loss or modification of marine mammal habitat including water and sediment quality, food resources, vessel movement, and expendable material.

Analysis and Negligible Impact Preliminary Determination

NMFS has defined ''negligible impact'' in 50 CFR 216.103 as ''* * * an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.'' In making a negligible impact determination, NMFS considers:

(1) The number of anticipated mortalities;

(2) The number and nature of anticipated injuries;

(3) The number, nature, and intensity, and duration of Level B harassment; and

(4) The context in which the takes occur.

As mentioned previously, NMFS estimates that 42 species of marine mammals could be potentially affected by Level A or Level B harassment over the course of the five-year period. In addition, 16 species could potentially be lethally taken over the course of the five-year period from explosives and 11

species could potentially be lethally taken from ship strikes over the course of the five-year period.

Pursuant to NMFS' regulations implementing the MMPA, an applicant is required to estimate the number of animals that will be ''taken'' by the specified activities (i.e., takes by harassment only, or takes by harassment, injury, and/or death). This estimate informs the analysis that NMFS must perform to determine whether the activity will have a ''negligible impact'' on the affected species or stock. Level B (behavioral) harassment occurs at the level of the individual(s) and does not assume any resulting population-level consequences, though there are known avenues through which behavioral disturbance of individuals can result in population-level effects (e.g., pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-percent reproductive success compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and has a 17-percent reproductive success). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (i.e., population-level effects). An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, and effects on habitat. Generally speaking, and especially with other factors being equal, the Navy and NMFS anticipate more severe effects from takes resulting from exposure to higher received levels (though this is in no way a strictly linear relationship throughout species, individuals, or circumstances) and less severe effects from takes resulting from exposure to lower received levels.

The Navy's specified activities have been described based on best estimates of the number of activity hours, items, or detonations that the Navy would conduct. There may be some flexibility in the exact number of hours, items, or detonations may vary from year to year, but totals would not exceed the 5-year totals. Furthermore, the Navy's take request is based on their model and post-model analysis. The requested number of Level B takes does not equate to the number of individual animals the Navy expects to harass (which is lower), but rather to the instances of take (i.e., exposures) that may occur. Depending on the location, duration, and frequency of activities, along with the distribution and movement of marine mammals, individual animals may be exposed multiple times to impulse or non-impulse sounds at or above the Level B harassment threshold. However, the Navy is currently unable to estimate the number of individuals that may be taken during training and testing activities. The model results are over- estimates of the number of takes that may occur to a smaller number of individuals. While the model shows that an increased number of takes may occur (compared to the 2009 rulemakings for AFAST and the east coast range complexes), the types and severity of individual responses to training and testing activities are not expected to change.

Taking the above into account, considering the sections discussed below, and dependent upon the implementation of the proposed mitigation measures, NMFS has preliminarily determined that Navy's proposed training and testing exercises would have a negligible impact on the marine mammal species and stocks present in the Study Area.

Behavioral Harassment

As discussed previously in this document, marine mammals can respond to sound in many different ways, a subset of which qualifies as harassment (see Behavioral Harassment Section). As also discussed earlier, the take estimates do take into account the fact that marine mammals will likely avoid strong sound sources to one extent or another. Although an animal that avoids the sound source will likely still be taken in some instances (such as if the avoidance results in a missed opportunity to feed, interruption of reproductive behaviors, etc.) in other cases avoidance may result in fewer instances of take than were estimated or in the takes resulting from exposure to a lower received level than was estimated, which could result in a less severe response. For sonar and other active acoustic sources, the Navy provided information (Tables 22 and 23) estimating the percentage of behavioral harassment that would occur within the 6-dB bins (without considering mitigation or avoidance). As mentioned above, an animal's exposure to a higher received level is more likely to result in a behavioral response that is more likely to adversely affect the health of the animal. As the table illustrates, the vast majority (~79%, at least for hull-mounted sonar, which is responsible for most of the sonar takes) of calculated takes for mid-frequency sonar result from exposures between 150dB and 162dB. Less than 0.5% of the takes are expected to result from exposures above 180dB.

TABLE 22—NON-IMPULSIVE RANGES IN 6 DB BINS AND PERCENTAGE OF BEHAVIORAL HARASSMENT

[Low-frequency cetaceans]

Received level in 6-dB Bins	Sonar Bin MF1 (e.g., SQS–53; ASW Hull-mounted Sonar)		Sonar Bin MF4 (e.g., AQS–22; ASW Dipping Sonar)		Sonar Bin MF5 (e.g., SSQ–62; ASW Sonobuoy)		Sonar Bin HF4 (e.g., SQQ–32; MIW Sonar)	
	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)
120 ≤ SPL<126	179,213–147,800	0.00	60,983–48,317	0.00	19,750–15,275	0.00	3,338–2,438	0.00
126 ≤ SPL<132	147,800–136,575	0.00	48,317–18,300	0.09	15,275–9,825	0.11	2,438–1,463	0.04
132 ≤ SPL<138	136,575–115,575	0.12	18,300–16,113	0.20	9,825–5,925	2.81	1,463–1,013	0.78
138 ≤ SPL<144	115,575–74,913	2.60	16,113–11,617	4.95	5,925–2,700	18.73	1,013–788	4.16
144 ≤ SPL<150	74,913–66,475	2.94	11,617–5,300	31.26	2,700–1,375	26.76	788–300	40.13
150 ≤ SPL<156	66,475–37,313	34.91	5,300–2,575	29.33	1,375–388	40.31	300–150	23.87
156 ≤ SPL<162	37,313–13,325	43.82	2,575–1,113	23.06	388–100	10.15	150–100	13.83
162 ≤ SPL<168	13,325–7,575	8.98	1,113–200	10.60	100–<50	1.13	100–<50	17.18
168 ≤ SPL<174	7,575–3,925	4.59	200–100	0.39	<50	0.00	<50	0.00
174 ≤ SPL<180	3,925–1,888	1.54	100–<50	0.12	<50	0.00	<50	0.00
180 ≤ SPL<186	1,888–400	0.48	<50	0.00	<50	0.00	<50	0.00

TABLE 22—NON-IMPULSIVE RANGES IN 6 dB BINS AND PERCENTAGE OF BEHAVIORAL HARASSMENT—Continued
[Low-frequency cetaceans]

Received level in 6-dB Bins	Sonar Bin MF1 (e.g., SQS–53; ASW Hull-mounted Sonar)		Sonar Bin MF4 (e.g., AQS–22; ASW Dipping Sonar)		Sonar Bin MF5 (e.g., SSQ–62; ASW Sonobuoy)		Sonar Bin HF4 (e.g., SQQ–32; MIW Sonar)	
	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)
186 ≤ SPL<192	400–200	0.02	<50	0.00	<50	0.00	<50	0.00
192 ≤ SPL<198	200–100	0.00	<50	0.00	<50	0.00	<50	0.00

TABLE 23—NON-IMPULSIVE RANGES IN 6 dB BINS AND PERCENTAGE OF BEHAVIORAL HARASSMENT
[Mid-frequency cetaceans]

Received level in 6-dB Bins	Sonar Bin MF1 (e.g., SQS–53; ASW Hull-mounted Sonar)		Sonar Bin MF4 (e.g., AQS–22; ASW Dipping Sonar)		Sonar Bin MF5 (e.g., SSQ–62; ASW Sonobuoy)		Sonar Bin HF4 (e.g., SQQ–32; MIW Sonar)	
	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)	Distance over which levels occur (m)	Percentage of behavioral harassments occurring at given levels (percent)
120 <= SPL < 126	179,525–147,875	0.00	61,433–48,325	0.00	20,638–16,350	0.00	4,388–4,050	0.00
126 <= SPL < 132	147,875–136,625	0.00	48,325–18,350	0.09	16,350–10,883	0.07	4,050–3,150	0.01
132 <= SPL < 138	136,625–115,575	0.12	18,350–16,338	0.18	10,883–7,600	1.68	3,150–2,163	0.38
138 <= SPL < 144	115,575–74,938	2.58	16,338–11,617	5.11	7,600–3,683	18.02	2,163–1,388	2.97
144 <= SPL < 150	74,938–66,525	2.92	11,617–5,425	30.08	3,683–1,738	31.66	1,388–1,013	7.15
150 <= SPL < 156	66,525–37,325	34.71	5,425–2,625	30.03	1,738–425	39.81	1,013–725	18.55
156 <= SPL < 162	37,325–13,850	43.02	2,625–1,125	23.44	425–150	6.94	725–250	53.79
162 <= SPL < 168	13,850–7,750	9.77	1,125–200	10.58	150–<50	1.82	250–150	9.62
168 <= SPL < 174	7,750–4,088	4.70	200–100	0.38	<50	0.00	150–100	4.40
174 <= SPL < 180	4,088–1,888	1.69	100–<50	0.11	<50	0.00	100–<50	3.13
180 <= SPL < 186	1,888–450	0.47	<50	0.00	<50	0.00	<50	0.00
186 <= SPL < 192	450–200	0.02	<50	0.00	<50	0.00	<50	0.00
192 <= SPL < 198	200–100	0.00	<50	0.00	<50	0.00	<50	0.00

ASW: anti-submarine warfare; MIW: mine warfare; m: meter; SPL: sound pressure level.

Although the Navy has been monitoring to discern the effects of sonar and other active acoustic sources on marine mammals since approximately 2006, and research on the effects of sonar and other active acoustic sources is advancing, our understanding of exactly how marine mammals in the Study Area will respond to sonar and other active acoustic sources is still limited. The Navy has submitted reports from more than 60 major exercises conducted in the HRC and SOCAL, and off the Atlantic Coast, that indicate no behavioral disturbance was observed. One cannot conclude from these results that marine mammals were not harassed from sonar and other active acoustic sources, as a portion of animals within the area of concern were not seen (especially those more cryptic, deep-diving species, such as beaked whales or *Kogia* spp.) and the full series of behaviors that would more accurately show an important change is not typically seen (i.e., only the surface behaviors are observed). Plus, some of the non-biologist lookouts might not be well-qualified to characterize behaviors. However, one can say that the animals that were observed did not respond in any of the obviously more severe ways, such as panic, aggression, or anti-predator response.

Diel Cycle

As noted previously, many animals perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hr cycle). Behavioral reactions to noise exposure (when taking place in a biologically important context, such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.,* 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007).

In the previous section, we discussed the fact that potential behavioral responses to sonar and other active acoustic sources that fall into the category of harassment could range in severity. By definition, for military readiness activities, takes by behavioral harassment involve the disturbance or likely disturbance of a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns (such as migration, surfacing, nursing, breeding, feeding, or sheltering) to a point where such behavioral patterns are abandoned or significantly altered. These reactions would, however, be more of a concern if they were expected to last over 24 hours or be repeated in subsequent days. However, vessels with hull-mounted active sonar are typically moving at speeds of 10–15 knots, which would make it unlikely that the same animal would remain in the immediate vicinity of the ship for the entire duration of the exercise. Animals may be exposed to sonar and other active acoustic sources for more than one day or on successive days. However, because neither the vessels nor the animals are stationary, significant long-term effects are not expected.

Most planned explosive exercises are of a short duration (1–6 hours). Although explosive exercises may sometimes be conducted in the same general areas repeatedly, because of their short duration and the fact that

they are in the open ocean and animals can easily move away, it is similarly unlikely that animals would be exposed for long, continuous amounts of time.

TTS

As mentioned previously, TTS can last from a few minutes to days, be of varying degree, and occur across various frequency bandwidths, all of which determine the severity of the impacts on the affected individual, which can range from minor to more severe. The TTS sustained by an animal is primarily classified by three characteristics:

(1) Frequency—Available data (of mid-frequency hearing specialists exposed to mid- or high-frequency sounds; Southall *et al.,* 2007) suggest that most TTS occurs in the frequency range of the source up to one octave higher than the source (with the maximum TTS at ½ octave above). The more powerful MF sources used have center frequencies between 3.5 and 8 kHz and the other unidentified MF sources are, by definition, less than 10 kHz, which suggests that TTS induced by any of these MF sources would be in a frequency band somewhere between approximately 2 and 20 kHz. There are fewer hours of HF source use and the sounds would attenuate more quickly, plus they have lower source levels, but if an animal were to incur TTS from these sources, it would cover a higher frequency range (sources are between 10 and 100 kHz, which means that TTS could range up to 200 kHz; however, HF systems are typically used less frequently and for shorter time periods than surface ship and aircraft MF systems, so TTS from these sources is even less likely). TTS from explosives would be broadband. Vocalization data for each species was provided in the Navy's LOA application.

(2) Degree of the shift (i.e., how many dB is the sensitivity of the hearing reduced by)—Generally, both the degree of TTS and the duration of TTS will be greater if the marine mammal is exposed to a higher level of energy (which would occur when the peak dB level is higher or the duration is longer). The threshold for the onset of TTS was discussed previously in this document. An animal would have to approach closer to the source or remain in the vicinity of the sound source appreciably longer to increase the received SEL, which would be difficult considering the lookouts and the nominal speed of an active sonar vessel (10–15 knots). In the TTS studies, some using exposures of almost an hour in duration or up to 217 SEL re 1 μPa^2sec, most of the TTS induced was 15 dB or less, though Finneran *et al.* (2007) induced 43 dB of TTS with a 64-sec exposure to a 20 kHz source. However, MFAS emits a 1-second ping 2 times/minute and incurring those levels of TTS is highly unlikely.

(3) Duration of TTS (recovery time)—In the TTS laboratory studies, some using exposures of almost an hour in duration or up to 217 SEL re 1 μPa^2sec, almost all individuals recovered within 1 day (or less, often in minutes), though in one study (Finneran *et al.,* 2007), recovery took 4 days.

Based on the range of degree and duration of TTS reportedly induced by exposures to non-pulse sounds of energy higher than that to which free-swimming marine mammals in the field are likely to be exposed during training exercises using sonar and other active acoustic sources in the Study Area, it is unlikely that marine mammals would ever sustain a TTS from MFAS that alters their sensitivity by more than 20 dB for more than a few days (and any incident of TTS would likely be far less severe due to the short duration of the majority of the exercises and the speed of a typical vessel), if that. Also, for the same reasons discussed in the Diel Cycle section, and because of the short distance within which animals would need to approach the sound source, it is unlikely that animals would be exposed to the levels necessary to induce TTS in subsequent time periods such that their recovery is impeded. Additionally, though the frequency range of TTS that marine mammals might sustain would overlap with some of the frequency ranges of their vocalization types, the frequency range of TTS from MFAS (the source from which TTS would most likely be sustained because the higher source level make it more likely that an animal would be exposed to a higher received level) would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations. If impaired, marine mammals would implement behaviors to compensate (see Acoustic Masking or Communication Impairment Section), though these compensations may incur energetic costs.

Acoustic Masking or Communication Impairment

Masking only occurs during the time of the signal (and potential secondary arrivals of indirect rays), versus TTS, which continues beyond the duration of the signal. Standard MFAS nominally pings every 50 seconds for hull-mounted sources. For the sources for which we know the pulse length, most are significantly shorter than hull-mounted active sonar, on the order of several microseconds to tens of microseconds. For hull-mounted active sonar, though some of the vocalizations that marine mammals make are less than one second long, there is only a 1 in 50 chance that they would occur exactly when the ping was received, and when vocalizations are longer than one second, only parts of them are masked. Alternately, when the pulses are only several microseconds long, the majority of most animals' vocalizations would not be masked. Masking effects from sonar and other active acoustic sources are expected to be minimal. If masking or communication impairment were to occur briefly, it would be in the frequency range of MFAS, which overlaps with some marine mammal vocalizations; however, it would likely not mask the entirety of any particular vocalization or communication series because the signal length, frequency, and duty cycle of the sonar signal does not perfectly mimic the characteristics of any marine mammal's vocalizations.

PTS, Injury, or Mortality

NMFS believes that many marine mammals would deliberately avoid exposing themselves to the received levels of sound necessary to induce injury by moving away from or at least modifying their path to avoid a close approach. Additionally, in the unlikely event that an animal approaches the sound source at a close distance, NMFS believes that the mitigation measures (i.e., shutdown/powerdown zones for sonar and other active acoustic sources) would typically ensure that animals would not be exposed to injurious levels of sound. As discussed previously, the Navy utilizes both aerial (when available) and passive acoustic monitoring (during all ASW exercises) in addition to Lookouts on vessels to detect marine mammals for mitigation implementation.

If a marine mammal is able to approach a surface vessel within the distance necessary to incur PTS, the likely speed of the vessel (nominal 10–15 knots) would make it very difficult for the animal to remain in range long enough to accumulate enough energy to result in more than a mild case of PTS. As mentioned previously and in relation to TTS, the likely consequences to the health of an individual that incurs PTS can range from mild to more serious dependent upon the degree of PTS and the frequency band it is in, and many animals are able to compensate for the shift, although it may include energetic costs.

Recovery from a threshold shift (i.e., partial hearing loss) can take a few minutes to a few days, depending on the severity of the initial shift. PTS would not fully recover. Threshold shifts do

not necessarily affect all hearing frequencies equally, so some threshold shifts may not interfere with an animal hearing biologically relevant sounds. It is uncertain whether some permanent hearing loss over a part of a marine mammal's hearing range would have long-term consequences for that individual, although many mammals lose hearing ability as they age. Mitigation measures would further reduce the predicted impacts. Long-term consequences to populations would not be expected.

As discussed previously, marine mammals (especially beaked whales) could potentially respond to MFAS at a received level lower than the injury threshold in a manner that indirectly results in the animals stranding. The exact mechanisms of this potential response, behavioral or physiological, are not known. When naval exercises have been associated with strandings in the past, it has typically been when three or more vessels are operating simultaneously, in the presence of a strong surface duct, and in areas of constricted channels, semi-enclosed areas, and/or steep bathymetry. Based on the number of occurrences where strandings have been definitively associated with military active sonar versus the number of hours of active sonar training that have been conducted, we suggest that the probability is small that this will occur. Lastly, an active sonar shutdown protocol for strandings involving live animals milling in the water minimizes the chances that these types of events turn into mortalities.

Onset mortality and onset slight lung injury criteria use conservative thresholds to predict the onset of effect as discussed section ''Take Criteria.'' The thresholds are based upon newborn calf masses, and therefore these effects are over-estimated by the acoustic model assuming most animals within the population are larger than a newborn calf. The threshold for onset mortality and onset slight lung injury is the impulse at which one percent of animals exposed would be expected to actually be injured or killed, with the likelihood of the effect increasing with proximity to the explosion. Considering these factors, these impacts would rarely be expected to actually occur. Nevertheless, it is possible for marine mammals to be injured or killed by an explosion. Small odontocetes are the marine mammal group most likely to be injured or killed by explosives (although mitigation measures are in place to prevent this, and only 3 deaths have been documented from explosives and these occurred prior to a modification in mitigation to improve protection during the use of time-delay firing devices). Most odontocete species have populations in the tens of thousands, so that even if a few individuals in the population were removed, long-term consequences for the population would not be expected.

While NMFS does not expect any mortalities from impulsive sources to occur, we propose to authorize takes by mortality of a limited number of small odontocetes from training and testing activities. Based on previous vessel strikes in the Study Area, NMFS also proposes to authorize takes by mortality of a limited number of marine mammals from vessel strikes. As described previously, although we have a good sense of how many marine mammals the Navy may strike over the course of five years (and it is much smaller than 10 large marine mammals and one large marine mammal as a result of training and testing, respectively), the species distribution is unpredicatable. Thus, we have analyzed the possibility that all the large whale takes requested in one year may be of the same species. However, if this happened to any given species in a given year—the number of takes authorized of that same species over the other 4 years of the rule is highly limited (for example, no more than the following number of ESA-listed marine mammals in any given year: three humpback whales, two fin whales, one sei whale, one blue whale, and one sperm whale from training activities). Over the last five years on the east coast, the Navy was involved in two ship strikes, with no confirmed marine mammal deaths as a result. The number of mortalities from vessel strikes are not expected to be an increase over the past decade, but are being addressed under this proposed incidental take authorization for the first time.

Species Specific Analysis

In the discussions below, the ''acoustic analysis'' refers to the Navy's model results and post-model analysis. The Navy performed a quantitative analysis to estimate the number of marine mammals that could be harassed by acoustic sources or explosives used during Navy training and testing activities. Inputs to the quantitative analysis included marine mammal density estimates; marine mammal depth occurrence distributions; oceanographic and environmental data; marine mammal hearing data; and criteria and thresholds for levels of potential effects. Marine mammal densities used in the model may overestimate actual densities when species data is limited and for species with seasonal migrations (e.g., North Atlantic right whales, humpbacks, blue whales, fin whales, sei whales). The quantitative analysis consists of computer modeled estimates and a post-model analysis to determine the number of potential mortalities and harassments. The model calculates sound energy propagation from sonars, other active acoustic sources, and explosives during naval activities; the sound or impulse received by animat dosimeters representing marine mammals distributed in the area around the modeled activity; and whether the sound or impulse received by a marine mammal exceeds the thresholds for effects. The model estimates are then further analyzed to consider animal avoidance and implementation of mitigation measures, resulting in final estimates of effects due to Navy training and testing. It is important to note that the Navy's take estimates represent the total number of takes and not the number of individuals taken, as a single individual may be taken multiple times over the course of a year.

Although this more complex computer modeling approach accounts for various environmental factors affecting acoustic propagation, the current software tools do not consider the likelihood that a marine mammal would attempt to avoid repeated exposures to a sound or avoid an area of intense activity where a training or testing event may be focused. Additionally, the software tools do not consider the implementation of mitigation (e.g., stopping sonar transmissions when a marine mammal is within a certain distance of a ship or range clearance prior to detonations). In both of these situations, naval activities are modeled as though an activity would occur regardless of proximity to marine mammals and without any horizontal movement by the animal away from the sound source or human activities (e.g., without accounting for likely animal avoidance). The initial model results overestimate the number of takes (as described previously), primarily by behavioral disturbance. The final step of the quantitative analysis of acoustic effects is to consider the implementation of mitigation and the possibility that marine mammals would avoid continued or repeated sound exposures. NMFS provided input to the Navy on this process and the Navy's qualitative analysis is described in detail in Chapter 6 of their LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

North Atlantic Right Whale

North Atlantic right whales may be exposed to sonar or other active acoustic stressors associated with training and testing activities throughout the year. Exposures may occur in feeding grounds off the New England coast, on migration routes along the east coast, and on calving grounds in the southeast off the coast of Florida and Georgia; however, mitigation areas would be established in these areas with specific measures to further reduce impacts to North Atlantic right whales. Acoustic modeling predicts that North Atlantic right whales could be exposed to sound that may result in 60 TTS and 51 behavioral reactions per year from annually recurring training activities. The majority of these impacts are predicted within the JAX Range Complex where animals spend winter months calving. Annually recurring testing activities could expose North Atlantic right whales to sound that may result in 11 TTS and 66 behavioral reactions per year. These impacts are predicted in Rhode Island inland waters and within the Northeast Range Complexes. North Atlantic right whales may be exposed to sound or energy from explosions associated with training activities throughout the year. The acoustic analysis predicts one TTS exposure to a North Atlantic right whale annually from recurring training activities, but no impacts on North Atlantic right whales due to annually recurring testing activities or ship shock trials. Testing activities that use explosives would not occur in the North Atlantic right whale mitigation areas, although the sound and energy from explosions associated with testing activities may be detectable within the mitigation areas.

The Navy and NMFS do not anticipate that a North Atlantic right whale would be struck by a vessel during training or testing activities because of the extensive measures in place to reduce the risk of a vessel strike to the species. For example, the Navy would receive information about recent North Atlantic right whale sightings before transiting through or conducting training or testing activities in the mitigation areas. During transits, vessels would exercise extreme caution and proceed at the slowest speed that is consistent with safety, mission, training, and operations. In the southeast North Atlantic right whale mitigation area, vessels will reduce speed when the observe a North Atlantic right whale, when they are within 5 nm (9 km) of a sighting reported in the past 12 hours, or when operating at night or during periods of poor visibility. The Navy would also minimize to the maximum extent practicable north-south transits through the southeast North Atlantic right whale mitigation area. Similar measures to reduce the risk of ship strikes would be implemented in the northeast and mid-Atlantic mitigation areas.

Due to the importance of North Atlantic right whale critical habitat for feeding and reproductive activities, takes that occur in those areas may have more severe effects than takes that occur while whales are just transiting and not involved in feeding or reproductive behaviors. To address these potentially more severe effects, NMFS and the Navy have included mitigation measures to minimize impacts (both number and severity) in both the northeast and southeast designated right whale critical habitat as well as the migratory corridor which connects them. Additional mitigation measures pertaining to training and testing activities within the mitigation areas are described below.

In the southeast North Atlantic right whale mitigation area, no training activities using sonar or other active acoustic sources would occur with the exception of object detection/navigational sonar training and maintenance activities for surface ships and submarines while entering/exiting Mayport, Florida. Training activities involving helicopter dipping sonar would occur off of Mayport, Florida within the right whale mitigation area; however, the majority of active sonar activities would occur outside the southeast mitigation area. In the northeast North Atlantic right whale mitigation area, hull-mounted sonar would not be used. However, a limited number of torpedo exercises would be conducted in August and September when many North Atlantic right whales have migrated south out of the area. Of course, North Atlantic right whales can be found outside of designated mitigation areas and sound from nearby activities may be detectable within the mitigation areas. Acoustic modeling predictions consider these potential circumstances.

Training activities that use explosives, with the exception of training with explosive sonobuoys, are not conducted in the southeast North Atlantic right whale mitigation area. Training activities that use explosives would not occur in the northeast North Atlantic right whale mitigation area. Although, the sound and energy from explosions associated with training activities may be detectable within the mitigation areas.

The western North Atlantic minimum stock size is based on a census of individual whales identified using photo-identification techniques. Review of the photo-identification recapture database in July 2010 indicated that 396 individually recognized whales in the catalogue were known to be alive in 2007. This value is a minimum and does not include animals alive prior to 2007, but not recorded in the individual sightings database as seen during December 1, 2004 to July 6, 2010 (note that matching of photos taken during 2008–2010 was not complete at the time the data were received). It also does not include some calves known to be born during 2007, or any other individual whales seen during 2007, but not yet entered into the catalogue. In addition, this estimate has no associated coefficient of variation.

Acoustic analysis indicates that no North Atlantic right whales will be exposed to sound levels likely to result in Level A harassment. In addition, modeling predicts no potential for serious injury or mortality to North Atlantic right whales. Moreover, NMFS believes that Navy Lookouts would detect right whales and implement the appropriate mitigation measure before an animal could approach to within a distance necessary to result in injury. Any takes that do occur would likely be short term and at a lower received level and would likely not affect annual rates of recruitment or survival.

Humpback Whale

The acoustic analysis predicts that humpback whales could be exposed to sound associated with training activities that may result in 1 PTS, 1,128 TTS and 514 behavioral reactions per year. The majority of these impacts are predicted in the JAX, Navy Cherry Point, VACAPES, and Northeast Range Complexes. Further, the analysis predicts that humpback whales could be exposed to sound associated with testing activities that may result in 94 TTS and 100 behavioral reactions per year as a result of annually recurring testing activities. Humpback whales may be exposed to sound or energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts that humpback whales could be exposed to sound or energy from explosions that may result in 1 TTS per year as a result of annually recurring training activities and 1 TTS to a humpback whale due to ship shock trials over a 5-year period. All predicted impacts would be to the Gulf of Maine stock because this is the only humpback whale stock present within the Study Area.

Research and observations show that if mysticetes are exposed to sonar or

other active acoustic sources they may react in a number of ways depending on the characteristics of the sound source, their experience with the sound source, and whether they are migrating or on seasonal grounds (i.e., breeding or feeding). Reactions may include alerting, breaking off feeding dives and surfacing, diving or swimming away, or no response at all. Additionally, migrating animals may ignore a sound source, or divert around the source if it is in their path. In the ocean, the use of sonar and other active acoustic sources is transient and is unlikely to repeatedly expose the same population of animals over a short period. Around heavily trafficked Navy ports and on fixed ranges, the possibility is greater for animals that are resident during all or part of the year to be exposed multiple times to sonar and other active acoustic sources. A few behavioral reactions per year, even from a single individual, are unlikely to produce long-term consequences for that individual or the population. Furthermore, the implementation of mitigation measures and sightability of humpback whales (due to their large size) would further reduce the potential impacts.

Mysticetes exposed to the sound from explosions may react in a number of ways which may include alerting; startling; breaking off feeding dives and surfacing; diving or swimming away; or showing no response at all. Occasional behavioral reactions to intermittent explosions are unlikely to cause long-term consequences for individual mysticetes or populations. Furthermore, the implementation of mitigation measures and sightability of humpback whales (due to their large size) would further reduce the potential impacts in addition to reducing the potential for injury.

The Navy estimates it may strike and take, by injury or mortality, an average of two marine mammals per year as a result of training activities, with a maximum of three in any given year. Of the ESA-listed species in the Study Area, the Navy anticipates no more than three humpback whales would be struck over a 5-year period based on the percentages that those species have been involved in vessel collisions. The Navy provided a detailed analysis of strike data in section 6.1.9 of its LOA application. Marine mammal mortalities were not previously analyzed by NMFS in the 2009 rulemakings for AFAST and the east coast range complexes. However, between 1995 and 2012, there have been 19 Navy vessel strikes in the Study Area. Eight of the strikes resulted in a confirmed death, but in 11 of the 19 strikes the fate of the animal was undetermined. The mortalities from vessel strike are not expected to be an increase over the past decade, but rather NMFS proposes to authorize these takes for the first time in the AFTT Study Area.

Of the 19 reported Navy vessel strikes since 1995, only one strike was attributed to a testing event in 2001. Therefore, for testing events that will not occur on a training platform, the Navy estimates it could potentially take one marine mammal by injury or mortality over the course of the 5-year AFTT regulations. A number of the reported whale strikes were unidentified to species; therefore, the Navy cannot quantifiably predict that the proposed takes will be of any particular species.

Important feeding areas for humpbacks are located in the Northeast. Stellwagen Bank National Marine Sanctuary contains some of this important area and the Navy does not plan to conduct any activities within Stellwagen Bank. The Navy has designated several planning awareness areas (PAAs) based on locations of high productivity that have been correlated with high concentrations of marine mammals, including important feeding areas in the Northeast, and would avoid conducting major training exercises involving active sonar in PAAs.

Sei Whale

The acoustic analysis predicts that sei whales could be exposed to sound associated with training activities that may result in 1 PTS, 6,604 TTS, and 3,582 behavioral reactions per year from annually recurring training activities. The majority of these impacts are predicted in the VACAPES, Navy Cherry Point, and JAX Range Complexes, with a relatively small percent predicted in the GOMEX and Northeast Range Complexes and in areas outside of OPAREAS and range complexes. Sei whales could be exposed to sound associated with testing activities that may result in 439 TTS and 316 behavioral reactions per year as a result of annually recurring testing activities. Sei whales may be exposed to sound and energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts that one sei whale could be exposed annually to sound from explosions associated with training activities that may cause TTS and one sei whale could exhibit a behavioral reaction. Annually recurring testing activities involving explosives may result in 1 TTS for a sei whale per year and 7 TTS due to exposure to explosive sound and energy from ship shock trials over a 5-year period. All predicted impacts would be to the Nova Scotia stock because this is the only sei whale stock present within the Study Area.

Research and observations show that if mysticetes are exposed to sonar or other active acoustic sources they may react in a number of ways depending on the characteristics of the sound source, their experience with the sound source, and whether they are migrating or on seasonal grounds (i.e., breeding or feeding). Reactions may include alerting, breaking off feeding dives and surfacing, diving or swimming away, or no response at all. Additionally, migrating animals may ignore a sound source, or divert around the source if it is in their path. In the ocean, the use of sonar and other active acoustic sources is transient and is unlikely to repeatedly expose the same population of animals over a short period. Around heavily trafficked Navy ports and on fixed ranges, the possibility is greater for animals that are resident during all or part of the year to be exposed multiple times to sonar and other active acoustic sources. A few behavioral reactions per year, even from a single individual, are unlikely to produce long-term consequences for that individual or the population. Furthermore, the implementation of mitigation measures and sightability of sei whales (due to their large size) would further reduce the potential impacts.

Mysticetes exposed to the sound from explosions may react in a number of ways, which may include alerting; startling; breaking off feeding dives and surfacing; diving or swimming away; or showing no response at all. Occasional behavioral reactions to intermittent explosions are unlikely to cause long-term consequences for individual mysticetes or populations. Furthermore, the implementation of mitigation measures and sightability of sei whales (due to their large size) would further reduce the potential impacts in addition to reducing the potential for injury.

The Navy estimates it may strike and take, by injury or mortality, an average of two marine mammals per year as a result of training activities, with a maximum of three in any given year. Of the ESA-listed species in the Study Area, the Navy anticipates no more than one sei whale would be struck over a 5-year period based on the percentages that those species have been involved in vessel collisions.

Of the 19 reported Navy vessel strikes since 1995, only one strike was attributed to a testing event in 2001. Therefore, for testing events that will not occur on a training platform, the

Navy estimates it could potentially take one marine mammal by injury or mortality over the course of the 5-year AFTT regulations. A number of the reported whale strikes were unidentified to species; therefore, the Navy cannot quantifiably predict that the proposed takes will be of any particular species.

No areas of specific importance for reproduction or feeding for sei whales have been identified in the AFTT Study Area. Sei whales in the North Atlantic belong to three stocks: Nova Scotia; Iceland-Denmark Strait; and Northeast Atlantic. The Nova Scotia stock occurs in the U.S. Atlantic waters. The best available abundance estimate for the Nova Scotia stock is 386 individuals.

Fin Whale

The acoustic analysis predicts that fin whales could be exposed to sound associated with training activities that may result in 1 PTS, 2,880 TTS and 1,608 behavioral reactions per year. The majority of these impacts are predicted in the VACAPES, Navy Cherry Point, and JAX Range Complexes, with a relatively small percent of impacts predicted in the GOMEX and Northeast Range Complexes. Fin whales could be exposed to sound associated with testing activities that may result in 263 TTS and 282 behavioral reactions per year as a result of annually recurring testing activities. The majority of these impacts are predicted within the Northeast Range Complexes with lesser impacts in the VACAPES, Navy Cherry Point, JAX, and GOMEX Range Complexes. Fin whales may be exposed to sound or energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts one TTS and one behavioral response for fin whales annually from training activities, 1 TTS to fin whales per year from annually recurring testing activities, and 6 TTS per 5-year period due to ship shock trials. All predicted impacts would be to the Western North Atlantic stock because this is the only fin whale stock present within the Study Area.

Research and observations show that if mysticetes are exposed to sonar or other active acoustic sources they may react in a number of ways depending on the characteristics of the sound source, their experience with the sound source, and whether they are migrating or on seasonal grounds (i.e., breeding or feeding). Reactions may include alerting, breaking off feeding dives and surfacing, diving or swimming away, or no response at all. Additionally, migrating animals may ignore a sound source, or divert around the source if it is in their path. In the ocean, the use of sonar and other active acoustic sources is transient and is unlikely to repeatedly expose the same population of animals over a short period. Around heavily trafficked Navy ports and on fixed ranges, the possibility is greater for animals that are resident during all or part of the year to be exposed multiple times to sonar and other active acoustic sources. A few behavioral reactions per year, even from a single individual, are unlikely to produce long-term consequences for that individual or the population. Furthermore, the implementation of mitigation measures and sightability of fin whales (due to their large size) would further reduce the potential impacts.

Mysticetes exposed to the sound from explosions may react in a number of ways, which may include alerting; startling; breaking off feeding dives and surfacing; diving or swimming away; or showing no response at all. Occasional behavioral reactions to intermittent explosions are unlikely to cause long-term consequences for individual mysticetes or populations. Furthermore, the implementation of mitigation measures and sightability of fin whales (due to their large size) would further reduce the potential impacts in addition to reducing the potential for injury.

The Navy estimates it may strike and take, by injury or mortality, an average of two marine mammals per year as a result of training activities, with a maximum of three in any given year. Of the ESA-listed species in the Study Area, the Navy anticipates no more than two fin whales would be struck over a 5-year period based on the percentages that those species have been involved in vessel collisions.

Of the 19 reported Navy vessel strikes since 1995, only one strike was attributed to a testing event in 2001. Therefore, for testing events that will not occur on a training platform, the Navy estimates it could potentially take one marine mammal by injury or mortality over the course of the 5-year AFTT regulations. A number of the reported whale strikes were unidentified to species; therefore, the Navy cannot quantifiably predict that the proposed takes will be of any particular species.

New England waters are considered a major feeding ground for fin whales, and there is evidence the females continually return to this area (Waring *et al.,* 2010). The Navy has designated PAAs in the Northeast that include some of these important feeding areas and would avoid conducting major training exercises involving active sonar in PAAs. Fin whales in the North Atlantic belong to the western North Atlantic stock. The best abundance estimate for the western North Atlantic stock of fin whales is 3,985.

Blue Whale

Blue whales may be exposed to sonar or other active acoustic stressors associated with training and testing activities throughout the year. The acoustic analysis predicts that blue whales could be exposed to sound associated with training activities that may result in 97 TTS and 50 behavioral reactions per year. The majority of these impacts are predicted in the VACAPES, Navy Cherry Point, and JAX Range Complexes, with a relatively small percent of impacts predicted in the GOMEX and Northeast Range Complexes. The acoustic analysis predicts that 10 TTS and 6 behavioral reactions may result from annual testing activities that use sonar and other active acoustic sources per year as a result of annually recurring testing activities. Blue whales may be exposed to sound or energy from explosions associated with training and testing activities throughout the year; however, the acoustic analysis predicts that no individuals would be impacted. All predicted impacts would be to the Western North Atlantic stock because this is the only blue whale stock present within the Study Area.

Research and observations show that if mysticetes are exposed to sonar or other active acoustic sources they may react in a number of ways depending on the characteristics of the sound source, their experience with the sound source, and whether they are migrating or on seasonal grounds (i.e., breeding or feeding). Reactions may include alerting, breaking off feeding dives and surfacing, diving or swimming away, or no response at all. Additionally, migrating animals may ignore a sound source, or divert around the source if it is in their path. In the ocean, the use of sonar and other active acoustic sources is transient and is unlikely to repeatedly expose the same population of animals over a short period. Around heavily trafficked Navy ports and on fixed ranges, the possibility is greater for animals that are resident during all or part of the year to be exposed multiple times to sonar and other active acoustic sources. A few behavioral reactions per year, even from a single individual, are unlikely to produce long-term consequences for that individual or the population. Furthermore, the implementation of mitigation measures and sightability of blue whales (due to their large size) would further reduce the potential impacts.

Mysticetes exposed to the sound from explosions may react in a number of ways, which may include alerting; startling; breaking off feeding dives and surfacing; diving or swimming away; or showing no response at all. Occasional behavioral reactions to intermittent explosions are unlikely to cause long-term consequences for individual mysticetes or populations. Furthermore, the implementation of mitigation measures and sightability of blue whales (due to their large size) would further reduce the potential impacts in addition to reducing the potential for injury.

The Navy estimates it may strike and take, by injury or mortality, an average of two marine mammals per year as a result of training activities, with a maximum of three in any given year. Of the ESA-listed species in the Study Area, the Navy anticipates no more than one blue whale would be struck over a 5-year period based on the percentages that those species have been involved in vessel collisions.

Of the 19 reported Navy vessel strikes since 1995, only one strike was attributed to a testing event in 2001. Therefore, for testing events that will not occur on a training platform, the Navy estimates it could potentially take one marine mammal by injury or mortality over the course of the 5-year AFTT regulations. A number of the reported whale strikes were unidentified to species; therefore, the Navy cannot quantifiably predict that the proposed takes will be of any particular species.

No areas of specific importance for reproduction or feeding for blue whales have been identified in the AFTT Study Area. Blue whales in the western North Atlantic are classified as a single stock. The photo identification catalogue count of 440 recognizable individuals from the Gulf of St. Lawrence is considered a minimum population estimate for the western North Atlantic stock.

Minke Whale

The acoustic analysis predicts that minke whales could be exposed to sound associated with training activites that may result in 10 PTS, 40,866 TTS, and 19,497 behavioral reactions per year. The majority of these impacts are predicted in the VACAPES, Navy Cherry Point, and JAX Range Complexes, with a relatively small percent of effects predicted in the Northeast and GOMEX Range Complexes. The acoustic analysis predicts that minke whales could be exposed to sound that may result in 1 PTS, 3,571 TTS, and 3,100 behavioral reactions per year as a result of annually recurring testing activities. Minke whales may be exposed to sound or energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts that minke whales could be exposed to sound annually from training activities that may result in 9 behavioral responses, 30 TTS, 4 PTS, 1 GI tract injury, and 1 slight lung injury (see Table 6–26 for predicted numbers of effects). As with mysticetes overall, effects are primarily predicted within the VACAPES Range Complex, followed by JAX, and Navy Cherry Point Range Complexes. Minke whales could be exposed to sound and energy from annual testing activities involving explosives that may result in 4 behavioral responses, 11 TTS, and 2 PTS, in addition to 41 TTS, 11 slight lung injury, and 3 mortalities due to exposure to explosive sound and energy from ship shock trials over a 5-year period. Based on conservativeness of the onset mortality criteria and impulse modeling and past observations of no marine mammal mortalities associated with ship shock trials, the predicted minke whale mortalities for CVN Ship Shock Trial are considered overestimates and highly unlikely to occur. All predicted effects on minke whales would be to the Canadian East Coast stock because this is the only stock present within the Study Area.

Research and observations show that if mysticetes are exposed to sonar or other active acoustic sources they may react in a number of ways depending on the characteristics of the sound source, their experience with the sound source, and whether they are migrating or on seasonal grounds (i.e., breeding or feeding). Reactions may include alerting, breaking off feeding dives and surfacing, diving or swimming away, or no response at all. Additionally, migrating animals may ignore a sound source, or divert around the source if it is in their path. In the ocean, the use of sonar and other active acoustic sources is transient and is unlikely to repeatedly expose the same population of animals over a short period. Around heavily trafficked Navy ports and on fixed ranges, the possibility is greater for animals that are resident during all or part of the year to be exposed multiple times to sonar and other active acoustic sources. A few behavioral reactions per year, even from a single individual, are unlikely to produce long-term consequences for that individual or the population. Furthermore, the implementation of mitigation measures and sightability of minke whales (due to their large size) would further reduce the potential impacts.

Mysticetes exposed to the sound from explosions may react in a number of ways, which may include alerting; startling; breaking off feeding dives and surfacing; diving or swimming away; or showing no response at all. Occasional behavioral reactions to intermittent explosions are unlikely to cause long-term consequences for individual mysticetes or populations. Furthermore, the implementation of mitigation measures and sightability of minke whales (due to their large size) would further reduce the potential impacts in addition to reducing the potential for injury.

Bryde's Whale

The acoustic analysis predicts that Bryde's whales could be exposed to sound associated with training activities that may result in 629 TTS and 326 behavioral reactions. The majority of these impacts are predicted in the VACAPES, Navy Cherry Point, and JAX Range Complexes, with a relatively small percent of effects predicted in the Northeast Range Complex. Bryde's whales could be exposed to sound that may result in 39 TTS and 21 behavioral reactions per year as a result of annually recurring testing activities. Bryde's whales may be exposed to sound or energy from explosions associated with training and testing activities throughout the year; however, the acoustic analysis predicts that no individuals would be impacted. All predicted effects on Bryde's whales would be to the Gulf of Mexico Oceanic stock because this is the only stock present within the Study Area.

Sperm Whale

Sperm whales may be exposed to sonar or other active acoustic stressors associated with training and testing activities throughout the year. The acoustic analysis predicts that sperm whales could be exposed to sound associated with training activities that may result in 435 TTS and 14,311 behavioral reactions annually from annually recurring training activities; and a maximum of one behavioral reactions from each biennial training activity civilian port defense. Sperm whales could be exposed to sound from annually recurring testing activities that may result in 584 TTS and 1,101 behavioral reactions per year. Sperm whales may be exposed to sound and energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts one TTS and one behavioral response for sperm whales

per year from explosions associated with training activities, one sperm whale behavioral response for per year due to annually recurring testing activities, and up to 20 TTS, 6 slight lung injuries, and 2 mortalities for sperm whales over a 5-year period as a result of ship shock trials in the VACAPES or JAX Range Complex. Based on conservativeness of the onset mortality criteria and impulse modeling and past observations of no marine mammal mortalities associated with ship shock trials, the predicted sperm whale mortalities for CVN ship shock trial are considered overestimates and highly unlikely to occur. Predicted effects on sperm whales within the Gulf of Mexico are presumed to primarily impact the Gulf of Mexico Oceanic stock, whereas the majority of impacts predicted offshore of the east coast would impact the North Atlantic stock.

Research and observations show that if sperm whales are exposed to sonar or other active acoustic sources they may react in a number of ways depending on their experience with the sound source and what activity they are engaged in at the time of the acoustic exposure. Sperm whales have shown resilience to acoustic and human disturbance, although they may react to sound sources and activities within a few kilometers. Sperm whales that are exposed to activities that involve the use of sonar and other active acoustic sources may alert, ignore the stimulus, avoid the area by swimming away or diving, or display aggressive behavior. Some (but not all) sperm whale vocalizations might overlap with the MFAS/HFAS TTS frequency range, which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to sonar and other active acoustic sources. The majority of Level B takes are expected to be in the form of mild responses. The implementation of mitigation measures and the large size of sperm whales (i.e., increased sightability) are expected to prevent any significant behavioral reactions. Therefore, long-term consequences for individuals or populations would not be expected.

The Navy estimates it may strike and take, by injury or mortality, an average of two marine mammals per year as a result of training activities, with a maximum of three in any given year. Of the ESA-listed species in the Study Area, the Navy anticipates no more than one sperm whale would be struck over a 5-year period based on the percentages that those species have been involved in vessel collisions.

Of the 19 reported Navy vessel strikes since 1995, only one strike was attributed to a testing event in 2001. Therefore, for testing events that will not occur on a training platform, the Navy estimates it could potentially take one marine mammal by injury or mortality over the course of the 5-year AFTT regulations. A number of the reported whale strikes were unidentified to species; therefore, the Navy cannot quantifiably predict that the proposed takes will be of any particular species.

The region of the Mississippi River Delta (Desoto Canyon) has been recognized for high densities of sperm whales and may represent an important calving and nursing or feeding area for these animals. Sperm whales typically exhibit a strong affinity for deep waters beyond the continental shelf, though in the area of the Mississippi Delta they also occur on the outer continental shelf break. However, there is a PAA designated immediately seaward of the continental shelf associated with the Mississippi Delta, in which the Navy plans to conduct no more than one major exercise and which they plan to take into consideration in the planning of unit-level exercises. Therefore, NMFS does not expect that impacts will be focuses, extensive, or severe in the sperm whale calving area.

Sperm whales within the Study Area belong to one of three stocks: North Atlantic; Gulf of Mexico Oceanic; or Puerto Rico and U.S. Virgin Islands. The best abundance estimate for sperm whales in the western North Atlantic is 4,804. The best abundance estimate for sperm whales in the northern Gulf of Mexico is 1,665.

Pygmy and Dwarf Sperm Whales

Pygmy and dwarf sperm whales may be exposed to sonar or other active acoustic stressors associated with training and testing activities throughout the year. The acoustic analysis predicts that pygmy and dwarf sperm whales could be exposed to sound that may result in 13 PTS, 4,914 TTS, and 169 behavioral reactions from annually recurring training activities; and a maximum of 1 TTS from the biennial training activity civilian port defense. The majority of predicted impacts on these species are within the JAX and GOMEX Range Complexes. Pygmy and dwarf sperm whales could be exposed to sound that may result in 5 PTS, 1,061 TTS and 29 behavioral reactions per year from annually recurring activities. Pygmy and dwarf sperm whales may be exposed to sound and energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts that pygmy and dwarf sperm whales could be exposed to sound from annual training activities involving explosions that may result in 1 behavioral response, 5 TTS, and 2 PTS (see Table 6–26 in the LOA application for predicted numbers of effects). The majority of these exposures occur within the VACAPES and GOMEX Range Complexes. Pygmy or dwarf sperm whales could be exposed to energy or sound from underwater explosions that may result in 1 behavioral response, 2 TTS, and 1 PTS per year as a result of annually recurring testing activities. These impacts could happen anywhere throughout the Study Area where testing activities involving explosives occur. Additionally, the acoustic analysis predicts 6 TTS, 1 PTS, and 3 slight lung injury to a *Kogia* species over a 5-year period due to ship shock trials either in the VACAPES or JAX Range Complex. Predicted effects on pygmy and dwarf sperm whales within the Gulf of Mexico are presumed to primarily impact the Gulf of Mexico stocks, whereas the majority of effects predicted offshore of the east coast would impact the Western North Atlantic stocks.

Research and observations on *Kogia* species are limited. However, these species tend to avoid human activity and presumably anthropogenic sounds. Pygmy and dwarf sperm whales may startle and leave the immediate area of the anti-submarine warfare training exercise. Significant behavioral reactions seem more likely than with most other odontocetes, however it is unlikely that animals would receive multiple exposures over a short time period allowing animals time to recover lost resources (e.g., food) or opportunities (e.g., mating). Therefore, long-term consequences for individual *Kogia* or their respective populations are not expected.

No areas of specific importance for reproduction or feeding for *Kogia* species have been identified in the AFTT Study Area. *Kogia* species are separated into two stocks within the Study Area: The Western North Atlantic and Gulf of Mexico Oceanic. The best estimate for both species in the U.S. Atlantic is 395 individuals. The best estimate for both species in the northern Gulf of Mexico is 453.

Beaked Whales

Beaked whales (six species total) may be exposed to sonar or other active acoustic stressors associated with training and testing activities

throughout the year. The acoustic analysis predicts that beaked whales could be exposed to sound that may result in 781 TTS and 135,573 behavioral reactions per year from annually recurring training activities; and a maximum of 8 behavioral reactions from each biennial training activity civilian port defense. Beaked whales could be exposed to sound that may result in 592 TTS and 32,695 behavioral reactions per year from annually recurring testing activities. The majority of these impacts happen within the Northeast Range Complexes, with lesser effects in the VACAPES, Navy Cherry Point, JAX, Key West and GOMEX Range Complexes. Beaked whales may be exposed to sound and energy from explosions associated with training and testing activities throughout the year; however, acoustic modeling predicts that no beaked whales would be impacted from annually recurring training and testing activities. The acoustic analysis predicts 7 TTS and 15 slight lung injuries to beaked whale species over a 5-year period due to ship shock trials. Predicted effects on beaked whales within the Gulf of Mexico are presumed to primarily impact the Gulf of Mexico stocks, whereas the majority of effects predicted offshore of the east coast would impact the Western North Atlantic stocks.

The Navy designated several planning awareness areas based on locations of high productivity that have been correlated with high concentrations of marine mammals and areas with steep bathymetric contours that are frequented by deep diving marine mammals such as beaked whales. For activities involving active sonar, the Navy would avoid planning major exercises in the planning awareness areas where feasible. In addition, to the extent operationally feasible, the Navy would not conduct more than one of the four major training exercises or similar scale events per year in the Gulf of Mexico planning awareness area. The best abundance estimate for the undifferentiated complex of beaked whales (*Ziphius* and *Mesoplodon* species) in the northwest Atlantic is 3,513. The best abundance estimate available for Cuvier's beaked whales in the northern Gulf of Mexico is 65. The best abundance estimate available for Mesoplodon species is a combined estimate for Blainville's beaked whale and Gervais' beaked whale in the oceanic waters of the Gulf of Mexico is 57. The current abundance estimate for the northern bottlenose whale in the eastern North Atlantic is 40,000, but population estimates for this species along the eastern U.S. coast are unknown.

Research and observations show that if beaked whales are exposed to sonar or other active acoustic sources they may startle, break off feeding dives, and avoid the area of the sound source to levels of 157 dB (McCarthy *et al.,* 2011). However, in research done at the Navy's instrumented tracking range in the Bahamas, animals leave the immediate area of the anti-submarine warfare training exercise, but return within a few days after the event ends. At the Bahamas range, populations of beaked whales appear to be stable. The analysis also indicates that no exposures to sound levels likely to result in Level A harassment would occur. However, while the Navy's model did not quantitatively predict any mortalities of beaked whales, the Navy requests a limited number of takes by mortality given the sensitivities these species may have to anthropogenic activities. Almost 40 years of conducting similar exercises in the AFTT Study Area without observed incident indicates that injury or motality are not expected to occur as a result of Navy activities.

Some beaked whale vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to sonar and other active acoustic sources. No beaked whales are predicted to be exposed to sound levels associated with PTS or injury.

As discussed previously, scientific uncertainty exists regarding the potential contributing causes of beaked whale strandings and the exact behavioral or physiological mechanisms that can potentially lead to the ultimate physical effects (stranding and/or death) that have been documented in a few cases. Although NMFS does not expect injury or mortality of any of these species to occur as a result of the training exercises involving the use of sonar and other active acoustic sources, there remains the potential for the operation of sonar and other active acoustic sources to contribute to the mortality of beaked whales. Consequently, NMFS proposes to authorize mortality and we consider the 10 potential mortalities from across the seven species potentially effected over the course of 5 years in our negligible impact determination (NMFS only intends to authorize a total of 10 beaked whale mortality takes, but since they could be of any of the species, we consider the effects of 10 mortalities of any of the six species).

Dolphins and Small Whales

Delphinids (dolphins and small whales) may be exposed to sonar or other active acoustic stressors associated with training and testing activities throughout the year. The acoustic analysis predicts that annually recurring training activities could expose 17 species of delphinids (Atlantic spotted dolphin, Atlantic white-sided dolphin, bottlenose dolphin, clymene dolphin, common dolphin, false killer whale, Fraser's dolphin, killer whale, melon-headed whale, pantropical spotted dolphin, pilot whale, pygmy killer whale, Risso's dolphin, rough-toothed dolphin, spinner dolphin, striped dolphin, and white-beaked dolphin) to sound that may result in 132,026 TTS and 1,542,713 behavioral reactions per year; and a maximum of 7 TTS and 592 behavioral reactions from each biennial training activity civilian port defense. The high take numbers are due in part to an increase in expended materials. However, many of these species generally travel in large pods and should be visible from a distance in order to implement mitigation measures and reduce potential impacts. In addition, the majority of takes are anticipated to be by behavioral harassment in the form of mild responses. Behavioral responses can range from alerting, to changing their behavior or vocalizations, to avoiding the sound source by swimming away or diving. Annually recurring testing activities involving sonar and other active acoustic sources could expose delphinids to sound that may result in 63,784 TTS and 113,169 behavioral reactions per year. Delphinids may be exposed to sound and energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts that delphinids could be exposed to sound that may result in mortality, injury, temporary hearing loss and behavioral responses (see Table 6–26 in the LOA application for predicted numbers of effects). A total of 15 mortalities, 41 slight lung injuries, and 1 gastrointestinal tract injury, 13 PTS, 174 TTS, 91 behavioral responses are predicted per year for delphinids from explosions associated with training activities. The acoustic analysis of annually recurring testing activities predicts that delphinids could be exposed to sound that may result in 10 mortalities, 39 slight lung injuries, 1 PTS, 124 TTS, and 53 behavioral responses per year (see Table 6–27 in

the LOA application for predicted numbers of effects). These predicted impacts would occur primarily in the VACAPES Range Complex, as well as the Naval Surface Warfare Center, Panama City Division Testing Range, but a few impacts could occur throughout the Study Area. While the Navy does not anticipate delphinid mortalities from underwater detonations during mine neutralization activities involving time-delay diver placed charges, there is a possibility of a marine mammal approaching too close to an underwater detonation when there is insufficient time to delay or stop without jeopardizing human safety. During ship shock trials, the acoustic analysis predicts that delphinids could be exposed to sound that may result in 5,386 TTS, 7,743 slight lung injuries, and 527 mortalities over a 5-year period, which would take place in either the VACAPES or JAX Range Complex (Tables 6–25 and 6–26 in the LOA application). Based on conservativeness of the onset mortality criteria and impulse modeling, past observations of no marine mammal mortalities associated with ship shock trials, and implementation of mitigation, the mortality results predicted by the acoustic analysis are over-estimated are not expected to occur. Therefore, the Navy conservatively estimates that 10 small odontocetes mortalities could occur during the CVN Ship Shock Trial and 5 small odontocetes mortalities could occur due to each DDG or LCS Ship Shock Trial. The majority of these exposures would occur within the VACAPES and GOMEX Range Complexes. Bottlenose dolphins may be exposed to sound and energy from pile driving associated with training activities throughout the year. The acoustic analysis predicts that bottlenose dolphins could be exposed to sound that may result in up to 747 behavioral responses per year. These exposures occur within the VACAPES and Cherry Point Range Complexes. Most delphinid species are separated into two stocks within the Study Area: The Western North Atlantic and Gulf of Mexico. Predicted effects on delphinids within the Gulf of Mexico are presumed to primarily impact the Gulf of Mexico stocks, whereas the majority of effects predicted offshore of the east coast would impact the Western North Atlantic stocks. Bottlenose dolphins are divided into one Oceanic and many Coastal stocks along the east coast. The majority of exposures to bottlenose dolphins are likely to the Oceanic stock with the exception of nearshore and in-port events that could expose animals in Coastal stocks.

Table 9 provides the abundance estimates for the different dolphin stocks. No areas of specific importance for reproduction or feeding for dolphins have been identified in the AFTT Study Area.

Harbor Porpoises

Harbor porpoises may be exposed to sonar or other active acoustic stressors associated with training and testing activities throughout the year. The acoustic analysis predicts that harbor porpoises could be exposed to sound that may result in 62 PTS, 20,161 TTS, and 120,895 behavioral reactions from annually recurring training activities; and a maximum of 432 TTS and 725 behavioral reactions from the biennial training activity civilian port defense. Annual testing activities could expose harbor porpoises to level of sonar and other active acoustic source sound resulting in 99 PTS, 78,250 TTS, and 1,964,774 behavioral responses per year. The high take numbers are due in part to an increase in expended materials. In addition, the majority of takes are anticipated to be by behavioral harassment in the form of mild responses. Behavioral responses can range from alerting, to changing their behavior or vocalizations, to avoiding the sound source by swimming away or diving. Predicted impacts on these species are within the VACAPES and Northeast Range Complexes primarily within inland waters and along the Northeast U.S. Continental Shelf Large Marine Ecosystem. The behavioral response function is not used to estimate behavioral responses by harbor porpoises; rather, a single threshold is used. Because of this very low behavioral threshold (120 dB re 1 μPa) for harbor porpoises, animals at distances exceeding 200 km in some cases are predicted to have a behavioral reaction in this acoustic analysis. Although this species is known to be more sensitive to these sources at lower received levels, it is not known whether animals would actually react to sound sources at these ranges, regardless of the received sound level. Harbor porpoises may be exposed to sound and energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts that harbor porpoises could be exposed to sound that may result in 94 behavioral responses, 497 TTS, 177 PTS, 1 gastrointestinal tract injury, 21 slight lung injuries, and 2 mortalities annually; and 7 TTS and 1 PTS biannually for civilian port defense activities (see Table 6–26 and Table 6–28 in the LOA application for predicted numbers of effects). The acoustic analysis predicts that harbor porpoises could be exposed to sound that may result in 484 behavioral responses, 348 TTS, 110 PTS, 7 slight lung injuries, and 1 mortality per year due to annually recurring testing activities. The acoustic analysis predicts no impacts on harbor porpoises as a result of ship shock trials. Predicted impacts on this species are mostly in the VACAPES Range Complex, with a few impacts in the Northeast Range Complex, generally within the Northeast U.S. Continental Shelf Large Marine Ecosystem.

Research and observations of harbor porpoises show that this species is wary of human activity and will avoid anthropogenic sound sources in many situations at levels down to 120 dB. This level was determined by observing harbor porpoise reactions to acoustic deterrent and harassment devices used to drive away animals from around fishing nets and aquaculture facilities. Avoidance distances were on the order of a kilometer or more, but it is unknown if animals would react similarly if the sound source was located at a greater distance of tens or hundreds of kilometers. Since a large proportion of testing activities happen within harbor porpoise habitat in the northeast, predicted effects on this species are greater relative to other marine mammals. Nevertheless, it is not known whether or not animals would actually react to sound sources at these ranges, regardless of the received sound level. Harbor porpoises may startle and leave the immediate area of the testing event, but may return after the activity has ceased. Therefore, these animals could avoid more significant impacts, such as hearing loss, injury, or mortality. Significant behavioral reactions seem more likely than with most other odontocetes, especially at closer ranges (within a few kilometers). Since these species are typically found in nearshore and inshore habitats, resident animals that are present throughout the year near Navy ports of fixed ranges in the northeast could receive multiple exposures over a short period of time year round. Animals that do not exhibit a significant behavioral reaction would likely recover from any incurred costs, which reduce the likelihood of long-term consequences, such as reduced fitness, for the individual or population.

All harbor porpoises within the Study Area belong to the Gulf of Maine/Bay of Fundy Stock and therefore, all predicted impacts would be to this stock. No areas of specific importance for reproduction or feeding for harbor porpoises have

been identified in the AFTT Study Area. The best abundance estimate for the Gulf of Maine/Bay of Fundy stock is 89,054 individuals.

Pinnipeds

Predicted effects on pinnipeds from annual training activities from sonar and other active acoustic sources indicate that three species (gray, harbor, and hooded seals) could be exposed to sound that may result in 77 behavioral reactions per year from annually recurring training activities and a maximum of 94 behavioral reactions per event for the biennial training activity, civilian port defense. Predicted effects on pinnipeds from annual testing activities from sonar and other active acoustic sources indicate that exposure to sound may result in 73 PTS, 7,494 TTS, and 6,489 behavioral reactions per year. These predicted impacts would occur almost entirely within the Northeast Range Complexes. Pinnipeds may be exposed to sound and energy from explosions associated with training and testing activities throughout the year. The acoustic analysis predicts 2 TTS and 1 behavioral reaction per year from explosions associated with annually recurring training activities and 15 behavioral responses, 15 TTS, and 2 PTS per year from explosions associated with annually recurring testing activities. The model predicts no impacts to pinnipeds from exposure to explosive energy and sound associated with ship shock trials. The predicted impacts would occur in the Northeast Range Complexes within the Northeast U.S. Continental Shelf Large Marine Ecosystem.

Research and observations show that pinnipeds in the water are tolerant of anthropogenic noise and activity. If seals are exposed to sonar or other active acoustic sources and explosives they may not react at all until the sound source is approaching within a few hundred meters and then may alert, ignore the stimulus, change their behaviors, or avoid the immediate area by swimming away or diving. Significant behavioral reactions would not be expected in most cases and long-term consequences for individual seals or populations are unlikely. Overall, predicted effects are low and the implementation of mitigation measures would further reduce potential impacts. Therefore, occasional behavioral reactions to intermittent anthropogenic noise are unlikely to cause long-term consequences for individual animals or populations.

No areas of specific importance for reproduction or feeding for pinnipeds have been identified in the AFTT Study Area. The acoustic analysis predicts that no pinnipeds will be exposed to sound levels or explosive detonations likely to result in mortality. Best estimates for the hooded and harp seals are 592,100 and 6.9 million, respectively. The best estimate for the western north Atlantic stock of harbor seals is 99,340. There is no best estimate available for gray seal, but a survey of the Canadian population ranged between 208,720 and 223,220. The North Atlantic Marine Mammal Commission Scientific Committee derived a rough estimate of the abundance of ringed seals in the northern extreme of the AFTT Study Area of approximately 1.3 million. There are no estimates available for bearded seals in the western Atlantic, the best available global population is 450,000 to 500,000, half of which inhabit the Bering and Chukchi Seas.

Preliminary Determination

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat and dependent upon the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that the total taking from Navy training and testing exercises in the AFTT Study Area will have a negligible impact on the affected species or stocks. NMFS has proposed regulations for these exercises that prescribe the means of effecting the least practicable adverse impact on marine mammals and their habitat and set forth requirements pertaining to the monitoring and reporting of that taking.

Subsistence Harvest of Marine Mammals

NMFS has preliminarily determined that the issuance of 5-year regulations and subsequent LOAs for Navy training and testing exercises in the AFTT Study Area would not have an unmitigable adverse impact on the availability of the affected species or stocks for subsistence use, since there are no such uses in the specified area.

ESA

There are six marine mammal species under NMFS jurisdiction included in the Navy's incidental take request that are listed as endangered under the ESA with confirmed or possible occurrence in the Study Area: blue whale, humpback whale, fin whale, sei whale, sperm whale, and North Atlantic right whale. The Navy will consult with NMFS pursuant to section 7 of the ESA, and NMFS will also consult internally on the issuance of LOAs under section 101(a)(5)(A) of the MMPA for AFTT activities. Consultation will be concluded prior to a determination on the issuance of the final rule and an LOA.

NMSA

Some Navy activities may potentially affect resources within National Marine Sanctuaries. The Navy will continue to analyze potential impacts to sanctuary resources and has provided the analysis in Navy's Draft Environmental Impact Statement/Overseas Environmental Impact Statement for AFTT to NOAA's Office of National Marine Sanctuaries. Navy will initiate consultation with NOAA's Office of National Marine Sanctuaries pursuant to the requirements of the National Marine Sanctuaries Act as warranted by ongoing analysis of the activities and their effects on sanctuary resources.

NEPA

NMFS has participated as a cooperating agency on the AFTT DEIS/OEIS, which was published on May 11, 2012. The AFTT DEIS/OEIS is posted on NMFS' Web site: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*. NMFS intends to adopt the Navy's final EIS/OEIS (FEIS/OEIS), if adequate and appropriate. Currently, we believe that the adoption of the Navy's FEIS/OEIS will allow NMFS to meet its responsibilities under NEPA for the issuance of regulations and LOAs for AFTT. If the Navy's FEIS/OEIS is deemed inadequate, NMFS would supplement the existing analysis to ensure that we comply with NEPA prior to the issuance of the final rule or LOA.

Classification

The Office of Management and Budget has determined that this proposed rule is not significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act (RFA), the Chief Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The RFA requires federal agencies to prepare an analysis of a rule's impact on small entities whenever the agency is required to publish a notice of proposed rulemaking. However, a federal agency may certify, pursuant to 5 U.S.C. 605(b), that the action will not have a significant economic impact on a substantial number of small entities. The Navy is the sole entity that will be affected by this rulemaking, not a small governmental jurisdiction, small

organization, or small business, as defined by the RFA. Any requirements imposed by an LOA issued pursuant to these regulations, and any monitoring or reporting requirements imposed by these regulations, would be applicable only to the Navy. NMFS does not expect the issuance of these regulations or the associated LOAs to result in any impacts to small entities pursuant to the RFA. Because this action, if adopted, would directly affect the Navy and not a small entity, NMFS concludes the action would not result in a significant economic impact on a substantial number of small entities.

List of Subjects in 50 CFR Part 218

Exports, Fish, Imports, Incidental take, Indians, Labeling, Marine mammals, Navy, Penalties, Reporting and recordkeeping requirements, Seafood, Sonar, Transportation.

Dated: January 23, 2013.

Alan D. Risenhoover,

Director, Office of Sustainable Fisheries, performing the functions and duties of the Deputy Assistant Administrator for Regulatory Programs.

For reasons set forth in the preamble, 50 CFR part 218 is proposed to be amended as follows:

PART 218—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

■ 1. The authority citation for part 218 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*

■ 2. Subpart I is added to part 218 to read as follows:

Subpart I—Taking and Importing Marine Mammals; U.S. Navy's Atlantic Fleet Training and Testing (AFTT)

Sec.

Subpart I—Taking and Importing Marine Mammals; U.S. Navy's Atlantic Fleet Training and Testing (AFTT)

§ 218.80 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to the U.S. Navy for the taking of marine mammals that occurs in the area outlined in paragraph (b) of this section and that occurs incidental to the activities described in paragraph (c) of this section.

(b) The taking of marine mammals by the Navy is only authorized if it occurs within the AFTT Study Area, which is comprised of established operating and warning areas across the North Atlantic Ocean and the Gulf of Mexico (see Figure 1–1 in the Navy's application). In addition, the Study Area also includes U.S. Navy pierside locations where sonar maintenance and testing occurs within the Study Area, and areas on the high seas that are not part of the range complexes, where training and testing may occur during vessel transit.

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the following activities within the designated amounts of use identified in paragraphs (c)(5) through (c)(11) of this section:

(1) Training events:

(i) Amphibious Warfare:

(A) Fire Support Exercise (FIREX) at Sea—up to 50 per year.

(B) Elevated Causeway System (ELCAS)—up to 1 event per year.

(ii) Anti-Surface Warfare:

(A) Gunnery Exercise (GUNEX) (Surface-to-Surface) Ship—Medium-caliber—up to 827 events per year.

(B) GUNEX (Surface-to-Surface) Ship—Large-caliber—up to 294 events per year.

(C) GUNEX (Surface-to-Surface) Boat—Medium-caliber—up to 434 events per year.

(D) Missile Exercise (MISSILEX) (Surface-to-Surface)—up to 20 events per year.

(E) GUNEX (Air-to-Surface)—up to 715 events per year.

(F) MISSILEX (Air-to-Surface) Rocket—up to 210 events per year.

(G) MISSILEX (Air-to-Surface)—up to 248 events per year.

(H) Bombing Exercise (BOMBEX) (Air-to-Surface)—up to 930 events per year.

(I) Sinking Exercise (SINKEX)—up to 1 event per year.

(J) Maritime Security Operations (MSO)—Anti-swimmer Grenades—up to 12 events per year.

(iii) Anti-Submarine Warfare:

(A) Tracking Exercise/Torpedo Exercise (TRACKEX/TORPEX)-Submarine—up to 102 events per year.

(B) TRACKEX/TORPEX-Surface– up to 764 events per year.

(C) TRACKEX/TORPEX-Helicopter—up to 432 events per year.

(D) TRACKEX/TORPEX-Maritime Patrol Aircraft—up to 752 events per year.

(E) TRACKEX-Maritime Patrol Aircraft Extended Echo Ranging Sonobuoys—up to 160 events per year.

(iv) Major Training Events:

(A) Anti-Submarine Warfare Tactical Development Exercise—up to 4 events in per year.

(B) Composite Training Unit Exercise—up to 5 events per year.

(C) Joint Task Force Exercise/Sustainment Exercise—up to 4 events per year.

(D) Integrated Anti-Submarine Warfare Course—up to 5 events per year.

(E) Group Sail—up to 20 events per year.

(v) Mine Warfare:

(A) Mine Countermeasures Exercise-MCM Sonar-Ship—up to 116 events per year.

(B) Mine Countermeasures—Mine Detection—up to 2,538 events per year.

(C) Mine Neutralization-Explosive Ordnance Disposal (EOD)—up to 618 events per year.

(D) Mine Neutralization—Remotely Operated Vehicle—up to 508 events per year.

(E) Coordinated Unit Level Helicopter Airborne Mine Countermeasure Exercises—up to 8 events per year.

(F) Civilian Port Defense—up to 1 event every other year.

(vi) Other Training Activities:

(A) Submarine Navigation—up to 284 events per year.

(B) Submarine Navigation Under Ice Certification—up to 24 events per year.

(C) Surface Ship Object Detection—up to 144 events per year.

(D) Surface Ship Sonar Maintenance—up to 824 events per year.

(D) Submarine Sonar Maintenance—up to 220 events per year.

(2) Naval Air Systems Command Testing Events:

(i) Anti-Surface Warfare (ASUW):

(A) Air-to-Surface Missile Test—up to 239 events per year.

(B) Air-to-Surface Gunnery Test—up to 165 events per year.

(C) Rocket Test—up to 332 events per year.

(ii) Anti-Submarine Warfare (ASW):

(A) Anti-Submarine Warfare Torpedo Test—up to 242 events per year.

(B) Kilo Dip—up to 43 events per year.

(C) Sonobuoy Lot Acceptance Test—up to 39 events per year.

(D) Anti-Submarine Warfare Tracking Test—Helicopter—up to 428 events per year.

(E) Anti-Submarine Warfare Tracking Test—Maritime Patrol Aircraft—up to 75 events per year.

(iii) Mine Warfare (MIW):

(A) Airborne Towed Minehunting Sonar System Test—up to155 events per year.
(B) Airborne Mine Neutralization System Test—up to 165 events per year.
(C) Airborne Projectile-based Mine Clearance System—up to 237 events per year.
(D) Airborne Towed Minesweeping Test—up to 72 events per year.
(3) Naval Sea Systems Command Testing Events:
(i) New Ship Construction:
(A) Surface Combatant Sea Trials—Pierside Sonar Testing—up to 12 events per year.
(B) Surface Combatant Sea Trials—ASW Testing—up to 10 events per year.
(C) Submarine Sea Trials—Pierside Sonar Testing—up to 6 events per year.
(D) Submarine Sea Trials—ASW Testing—up to 12 events per year.
(D) Mission Package Testing—ASW—up to 24 events per year.
(E) Mission Package Testing—Mine Countermeasures—up to 8 events per year.
(ii) Life Cycle Activities:
(A) Surface Ship Sonar Testing/Maintenance—up to 16 events per year.
(B) Submarine Sonar Testing/Maintenance—up to 28 events per year.
(C) Combat System Ship Qualification Trial (CSSQT)—In-Port Maintenance Period—up to 12 events per year.
(D) Combat System Ship Qualification (CSSQT)—Undersea Warfare (USW)—up to 9 events per year.
(iii) NAVSEA Range Activities:
(A) Unmanned Underwater Vehicles Demonstration—up to 3 events per 5 year period.
(B) Mine Detection and Classification Testing—up to 81 events per year.
(C) Stationary Source Testing—up to 11 events per year.
(D) Special Warfare Testing—up to 110 events per year.
(E) Unmanned Underwater Vehicle Testing—up to 211 events per year.
(F) Torpedo Testing (non-explosive)—up to 30 events per year.
(G) Towed Equipment Testing—up to 33 events per year.
(H) Semi-Stationary Equipment Testing—up to 154 events per year.
(I) Pierside Integrated Swimmer Defense Testing—up to 6 events per year.
(J) Signature Analysis Activities—up to 18 events per year.
(K) Mine Testing—up to 33 events per year.
(L) Surface Testing—up to 33 events per year.
(M) Mine Countermeasure/Neutralization Testing—up to 15 events per year.
(N) Ordnance Testing—up to 37 events per year.
(iv) Additional Activities Outside of NAVSEA Ranges:
(A) Torpedo (non-explosive) Testing—up to 26 events per year.
(B) Torpedo (explosive) Testing—up to 4 events per year.
(C) Countermeasure Testing—up to 3 events per year.
(D) Pierside Sonar Testing—up to 23 events per year.
(E) At-sea Sonar Testing—up to 15 events per year.
(F) Mine Detection and Classification Testing—up to 66 events per year.
(G) Mine Countermeasure/Neutralization Testing—up to 28 events per year.
(H) Pierside Integrated Swimmer Defense Testing—up to 3 events per year.
(I) Unmanned Vehicle Deployment and Payload Testing—up to 111 events per year.
(J) Special Warfare Testing—up to 4 events per year.
(K) Aircraft Carrier Sea Trials—Gun Testing—Medium Caliber—up to 410 events per year.
(L) Surface Warfare Mission Package—Gun Testing—Medium Caliber—up to 5 events per year.
(M) Surface Warfare Mission Package—Gun Testing—Large Caliber—up to 5 events per year.
(N) Surface Warfare Mission Package—Missile/Rocket Testing—up to 15 events per year.
(O) Mine Countermeasure Mission Package Testing—up to 8 events per year.
(P) Aircraft Carrier Full Ship Shock Trial—1 event per 5 year period
(Q) DDG 1000 Zumwalt Class Destroyer Full Ship Shock Trial—1 event per 5 year period.
(R) Littoral Combat Ship Full Ship Shock Trial—up to 2 events per 5 year period.
(S) At-sea Explosives Testing—up to 4 events per year.
(4) Active Acoustic Sources Used During Annual Training:
(i) Mid-frequency (MF) Source Classes:
(A) MF1—up to 9,844 hours per year.
(B) MF1K—up to 163 hours per year.
(C) MF2—up to 3,150 hours per year.
(D) MF2K—up to 61 hours per year.
(E) MF3—up to 2,058 hours per year.
(F) MF4—up to 927 hours per year.
(G) MF5—up to 14,556 sonobuoys per year.
(H) MF11—up to 800 hours per year.
(I) MF12—up to 687 hours per year.
(ii) High-frequency (HF) and Very High-frequency (VHF) Source Classes:
(A) HF1—up to 1,676 hours per year.
(B) HF4—up to 8,464 hours per year.
(iii) Anti-Submarine Warfare (ASW) Source Classes:
(A) ASW1—up to 128 hours per year.
(B) ASW2—up to 2,620 sonobuoys per year.
(C) ASW3—up to 13,586 hours per year.
(D) ASW4—up to 1,365 devices per year.
(iv) Torpedoes (TORP) Source Classes:
(A) TORP1—up to 54 torpedoes per year.
(B) TORP2—up to 80 torpedoes year.
(5) Active Acoustic Sources Used During Annual Testing:
(i) LF:
(A) LF4—up to 254 hours per year.
(B) LF5—up to 370 hours per year.
(ii) MF:
(A) MF1—up to 220 hours per year.
(B) MF1K—up to 19 hours per year.
(C) MF2—up to 36 hours per year.
(D) MF3—up to 434 hours per year.
(E) MF4—up to 776 hours per year.
(F) MF5—up to 4,184 sonobuoys per year.
(G) MF6—up to 303 items per year.
(H) MF8—up to 90 hours per year.
(I) MF9—up to 13,034 hours per year.
(J) MF10—up to 1,067 hours per year.
(K) MF12—up to 144 hours per year.
(iii) HF and VHF:
(A) HF1—up to 1,243 hours per year.
(B) HF3—up to 384 hours per year.
(C) HF4—up to 5,572 hours per year.
(D) HF5—up to 1,206 hours per year.
(E) HF6—up to 1,974 hours per year.
(F) HF7—up to 366 hours per year.
(iv) ASW:
(A) ASW1—up to 96 hours per year.
(B) ASW2—up to 2,743 sonobuoys per year.
(C) ASW2—up to 274 hours per year.
(D) ASW3—up to 948 hours per year.
(E) ASW4—up to 483 devices per year.
(v) TORP:
(A) TORP1—up to 581 torpedoes per year.
(B) TORP2—up to 521 torpedoes per year.
(vi) Acoustic Modems (M):
(A) M3—up to 461 hours per year.
(B) [Reserved]
(vii) Swimmer Detection Sonar (SD):
(A) SD1 and SD2—up to 230 hours per year.
(B) [Reserved]
(viii) Forward Looking Sonar (FLS):
(A) FLS2 and FLS3—up to 365 hours per year.
(B) [Reserved]
(ix) Synthetic Aperture Sonar (SAS):
(A) SAS1—up to 6 hours per year.
(B) SAS2—up to 3,424 hours per year.
(6) Explosive Sources Used During Annual Training:
(i) Explosive Classes:
(A) E1 (0.1 to 0.25 lb NEW)—up to 124,552 detonations per year.
(B) E2 (1.26 to 0.5 lb NEW)—up to 856 detonations per year.

(C) E3 (0.6 to 2.5 lb NEW)—up to 3,132 detonations per year.
(D) E4 (>2.5 to 5 lb NEW)—up to 2,190 detonations per year.
(E) E5 (>5 to 10 lb NEW)—up to 14,370 detonations per year.
(F) E6 (>10 to 20 lb NEW)—up to 500 detonations per year.
(G) E7 (>20 to 60 lb NEW)—up to 322 detonations per year.
(H) E8 (>60 to 100 lb NEW)—up to 77 detonations per year.
(I) E9 (>100 to 250 lb NEW)—up to 2 detonations per year.
(J) E10 (>250 to 500 lb NEW)—up to 8 detonations per year.
(K) E11 (>500 to 650 lb NEW)—up to 1 detonations per year.
(L) E12 (>650 to 1,000 lb NEW)—up to 133 detonations per year.
(ii) [Reserved]
(7) Explosive Sources Used During Annual Testing:
(i) Explosive Classes:
(A) E1 (0.1 to 0.25 lb NEW)—up to 25,501 detonations per year.
(B) E2 (0.26 to 0.5 lb NEW)—up to 0 detonations per year.
(C) E3 (0.6 to 2.5 lb NEW)—up to 2,912 detonations per year.
(D) E4 (>2.5 to 5 lb NEW)—up to 1,432 detonations per year.
(E) E5 (>5 to 10 lb NEW)—up to 495 detonations per year.
(F) E6 (>10 to 20 lb NEW)—up to 54 detonations per year.
(G) E7 >20 to 60 lb NEW)—up to 0 detonations per year.
(H) E8 (>60 to 100 lb NEW)—up to 11 detonations per year.
(I) E9 (>100 to 250 lb NEW)—up to 0 detonations per year.
(J) E10 (>250 to 500 lb NEW)—up to 10 detonations per year.
(K) E11 (>500 to 650 lb NEW)—up to 27 detonations per year.
(L) E12 (>650 to 1,000 lb NEW)—up to 0 detonations per year.
(M) E13 (>1,000 to 1,740 lb NEW)—up to 0 detonations per year.
(N) E14(>1,714 to 3,625 lb NEW)—up to 4 detonations per year.
(ii) [Reserved]
(8) Active Acoustic Source Used During Non-Annual Training
(i) HF4—up to 192 hours
(ii) [Reserved]
(9) Active Acoustic Sources Used During Non-Annual Testing
(i) LF5—up to 240 hours
(ii) MF9—up to 480 hours
(iii) HF5—up to 240 hours
(iv) HF6—up to 720 hours
(v) HF7—up to 240 hours
(vi) FLS2 and FLS3—up to 240 hours
(vii) SAS2—up to 720 hours
(10) Explosive Sources Used During Non-Annual Training
(i) E2(0.26 to 0.5 lbs NEW)—up to 2
(ii) E4 (2.6 to 5 lbs NEW)—up to 2
(11) Explosive Sources Used During Non-Annual Training
(i) E1 (0.1 to 0.25 lbs NEW)—up to 600
(ii) E16 (7,251 to 14,500 lbs NEW)—up to 12
(iii) E17 (14,501 to 58,000 lbs NEW)—up to 4

§ 218.81 Effective dates and definitions.

(a) Regulations are effective January 25, 2013 through January 25, 2018.
(b) The following definitions are utilized in these regulations:
(1) *Uncommon Stranding Event (USE)*—A stranding event that takes place during a major training exercise (MTE) and involves any one of the following:
(i) Two or more individuals of any cetacean species (not including mother/calf pairs), unless of species of concern listed in paragraph (b)(1)(ii) of this section found dead or live on shore within a 2-day period and occurring within 30 miles of one another.
(ii) A single individual or mother/calf pair of any of the following marine mammals of concern: beaked whale of any species, *Kogia* spp., Risso's dolphin, melon-headed whale, pilot whale, North Atlantic right whale, humpback whale, sperm whale, blue whale, fin whale, or sei whale.
(iii) A group of two or more cetaceans of any species exhibiting indicators of distress.
(2) *Shutdown*—The cessation of MFAS/HFAS operation or detonation of explosives within 14 nautical miles of any live, in the water, animal involved in a USE.

§ 218.82 Permissible methods of taking.

(a) Under Letters of Authorization (LOAs) issued pursuant to § 218.87, the Holder of the Letter of Authorization may incidentally, but not intentionally, take marine mammals within the area described in § 218.80, provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate LOA.
(b) The activities identified in § 218.80(c) must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammals and their habitat.
(c) The incidental take of marine mammals under the activities identified in § 218.80(c) is limited to the following species, by the identified method of take and the indicated number of times:
(1) Level B Harassment for all Training Activities:
(i) Mysticetes:
(A) Blue whale (*Balaenoptera musculus*)—735 (an average of 147 per year)
(B) Bryde's whale (*Balaenoptera edeni*)—4,775 (an average of 955 per year)
(C) Fin whale (*Balaenoptera physalus*)—22,450 (an average of 4,490 per year)
(D) North Atlantic right whale (*Eubalaena glacialis*)—560 (an average of 112 per year)
(E) Humpback whale (*Megaptera novaeangliae*)—8,215 (an average of 1,643 per year)
(F) Minke whale (*Balaenoptera acutorostrata*)—302,010 (an average of 60,402 per year)
(G) Sei whale (*Balaenoptera borealis*)—50,940 (an average of 10,188 per year)
(ii) Odontocetes:
(A) Atlantic spotted dolphin (*Stenella frontalis*)—887,550 (an average of 177,570 per year)
(B) Atlantic white-sided dolphin (Lagenorhynchus acutus)—156,100 (an average of 31,228)
(C) Blainville's beaked whale (*Mesoplodon densirostris*)—140,893 (28,179 per year)
(D) Bottlenose dolphin (*Tursiops truncatus*)—1,422,938 (284,728 per year)
(E) Clymene dolphin (Stenella clymene)—97,938 (19,588 per year)
(F) Common dolphin (Delphinus spp.)—2,325,022 (465,014 per year)
(G) Cuvier's beaked whale (*Ziphius cavirostris*)—174,473 (34,895 per year)
(H) False killer whale (*Pseudorca crassidens*)—3,565 (an average of 713 per year)
(I) Fraser's dolphin (*Lagenodelphis hosei*)—11,025 (2,205 per year)
(J) Gervais' beaked whale (Mesoplodon europaeus)—141,271 (28,255 per year)
(K) Harbor porpoise (*Phocoena phocoena*)—711,727 (142,811 per year)
(L) Killer whale (*Orcinus orca*)—70,273 (14,055 per year)
(M) *Kogia* spp.—25,448 (5,090 per year)
(N) Melon-headed whale (*Peponocephala electra*)—104,380 (20,876 per year)
(O) Northern bottlenose whale (Hyperoodon ampullatus)—91,786 (18,358 per year)
(P) Pantropical spotted dolphin (*Stenella attenuata*)—354,834 (70,968 per year)
(Q) Pilot whale (*Globicephala spp.*)—506,240 (101,252 per year)
(R) Pygmy killer whale (*Feresa attenuata*)—7,435 (1,487 per year)
(S) Risso's dolphin (*Grampus griseus*)—1,192,618 (238,528 per year)
(T) Rough-toothed dolphin (*Steno bredanensis*)—5,293 (1,059 per year)

(U) Sowerby's beaked whale (*Mesoplodon bidens*)—49,818 (9,964 per year)
(V) Sperm whale (*Physeter macrocephalus*)—73,743 (14,749 per year)
(W) Spinner dolphin (*Stenella longirostris*)—102,068 (20,414 per year)
(X) Striped dolphin (*Stenella coerulealba*)—1,121,511 (224,305 per year)
(Y) True's beaked whale (*Mesoplodon mirus*)—83,553 (16,711 per year)
(Z) White-beaked dolphin (Lagenorhynchus albirostris)—8,027 (1,613 per year)
(iii) Pinnipeds:
(A) Gray seal (*Halichoerus grypus*)—316 (82 per year)
(B) Harbor seal (*Phoca vitulina*)—329 (83 per year)
(C) Harp seal (*Pagophilus groenlanica*)—12 (4 per year)
(D) Hooded seal (*Cystophora cristata*)—25 (5 per year)
(2) Level A Harassment for all Training Activities:
(i) Mysticetes:
(A) Minke whale (*Balaenoptera acutorostrata*)—80 (16 per year)
(B) Fin whale (*Balaenoptera physalus*)—5 (1 per year)
(C) Humpback whale (*Megaptera novaeangliae*)—5 (1 per year)
(D) Sei whale (*Balaenoptera borealis*)—5 (1 per year)
(ii) Odontocetes:
(A) Atlantic spotted dolphin (*Stenella frontalis*)—60 (12 per year)
(B) Atlantic white-sided dolphin (Lagenorhynchus acutus)—15 (3 per year)
(C) Bottlenose dolphin (*Tursiops truncatus*)—40 (8 per year)
(D) Clymene dolphin (Stenella clymene)—5 (1 per year)
(E) Common dolphin (Delphinus spp.)—85 (17 per year)
(F) Harbor porpoise (*Phocoena phocoena*)—1,308 (262 per year)
(G) *Kogia* spp.—75 (15 per year)
(H) Pantropical spotted dolphin (*Stenella attenuata*)—5 (1 per year)
(I) Pilot whale (*Globicephala spp.*)—15 (3 per year)
(J) Risso's dolphin (*Grampus griseus*)—15 (3 per year)
(K) Striped dolphin (*Stenella coerulealba*)—35 (7 per year)
(3) Mortality for all Training Activities:
(i) No more than 85 mortalities (17 per year) applicable to any small odontocete species from an impulse source.
(ii) No more than 10 beaked whale mortalities (2 per year).
(iii) No more than 10 large whale mortalities (no more than 3 in any given year) from vessel strike.
(4) Level B Harassment for all Testing Activities:
(i) Mysticetes:
(A) Blue whale (*Balaenoptera musculus*)—82 (18 per year)
(B) Bryde's whale (*Balaenoptera edeni*)—304 (64 per year)
(C) Fin whale (*Balaenoptera physalus*)—2,784 (599 per year)
(D) North Atlantic right whale (*Eubalaena glacialis*)—395 (87 per year)
(E) Humpback whale (*Megaptera novaeangliae*)—976 (200 per year)
(F) Minke whale (*Balaenoptera acutorostrata*)—34,505 (7,756 per year)
(G) Sei whale (*Balaenoptera borealis*)—3,821 (796 per year)
(ii) Odontocetes:
(A) Atlantic spotted dolphin (*Stenella frontalis*)—104,647 (24,429 per year)
(B) Atlantic white-sided dolphin (Lagenorhynchus acutus)—50,133 (10,330 per year)
(C) Blainville's beaked whale (*Mesoplodon densirostris*)—23,561 (4,753 per year)
(D) Bottlenose dolphin (*Tursiops truncatus*)—146,863 (33,708 per year)
(E) Clymene dolphin (Stenella clymene)—10,169 (2,173 per year)
(F) Common dolphin (Delphinus spp.)—235,493 (52,546 per year)
(G) Cuvier's beaked whale (*Ziphius cavirostris*)—30,472 (6,144 per year)
(H) False killer whale (*Pseudorca crassidens*)—497 (an average of 109 per year)
(I) Fraser's dolphin (*Lagenodelphis hosei*)—791 (171 per year)
(J) Gervais' beaked whale (Mesoplodon europaeus)—23,388 (4,764 per year)
(K) Harbor porpoise (*Phocoena phocoena*)—10,358,300 (2,182,872 per year)
(L) Killer whale (*Orcinus orca*)—7,173 (1,540 per year)
(M) *Kogia* spp.—5,536 (1,163 per year)
(N) Melon-headed whale (*Peponocephala electra*)—6,950 (1,512 per year)
(O) Northern bottlenose whale (Hyperoodon ampullatus)—60,409 (12,096 per year)
(P) Pantropical spotted dolphin (*Stenella attenuata*)—38,385 (7,985 per year)
(Q) Pilot whale (*Globicephala spp.*)—74,614 (15,701 per year)
(R) Pygmy killer whale (*Feresa attenuata*)—603 (135 per year)
(S) Risso's dolphin (*Grampus griseus*)—113,682 (24,356 per year)
(T) Rough-toothed dolphin (*Steno bredanensis*)—618 (138 per year)
(U) Sowerby's beaked whale (*Mesoplodon bidens*)—13,338 (2,698 per year)
(V) Sperm whale (*Physeter macrocephalus*)—8,533 (1,786 per year)
(W) Spinner dolphin (*Stenella longirostris*)—13,208 (2,862 per year)
(X) Striped dolphin (*Stenella coerulealba*)—97,852 (21,738 per year)
(Y) True's beaked whale (*Mesoplodon mirus*)—15,569 (3,133 per year)
(Z) White-beaked dolphin (Lagenorhynchus albirostris)—8,370 (1,818 per year)
(iii) Pinnipeds:
(A) Bearded seal (*Erignathus barbatus*)—161 (33 per year)
(B) Gray seal (*Halichoerus grypus*)—14,149 (3,293 per year)
(C) Harbor seal (*Phoca vitulina*)—38,860 (8,668 per year)
(D) Harp seal (*Pagophilus groenlanica*)—16,277 (3,997 per year)
(E) Hooded seal (*Cystophora cristata*)—1,447 (295 per year)
(F) Ringed seal (*Pusa hispida*)—1,795 (359 per year)
(5) Level A Harassment for all Testing Activities:
(i) Mysticetes:
(A) Minke whale (*Balaenoptera acutorostrata*)—28 (15 per year)
(B) [Reserved]
(ii) Odontocetes:
(A) Atlantic spotted dolphin (*Stenella frontalis*)—1,964 (1,854 per year)
(B) Atlantic white-sided dolphin (Lagenorhynchus acutus)—166 (147 per year)
(C) Bottlenose dolphin (*Tursiops truncatus*)—190 (149 per year)
(D) Clymene dolphin (Stenella clymene)—87 (80 per year)
(E) Common dolphin (Delphinus spp.)—2,369 (2,203 per year)
(F) Harbor porpoise (*Phocoena phocoena*)—1,080 (216 per year)
(G) Killer whale (Orcinus orca)—2 (2 per year)
(H) *Kogia* spp.—36 (12 per year)
(I) Melon-headed whale (*Peponocephala electra*)—30 (28 per year)
(J) Pantropical spotted dolphin (*Stenella attenuata*)—92 (71 per year)
(K) Pilot whale (*Globicephala spp.*)—163 (153 per year)
(L) Pygmy killer whale (*Feresa attenuata*)—3 (3 per year)
(M) Risso's dolphin (*Grampus griseus*)—89 (70 per year)
(N) Spinner dolphin (*Stenella longirostris*)—34 (28 per year)
(O) Striped dolphin (*Stenella coerulealba*)—2,751 (2,599 per year)
(P) White-beaked dolphin (Lagenorhynchus albirostris)—3 (3 per year)
(iii) Pinnipeds:
(A) Gray seal (*Halichoerus grypus*)—46 (14 per year)
(B) Harbor seal (*Phoca vitulina*)—330 (78 per year)
(C) Harp seal (*Pagophilus groenlanica*)—30 (14 per year)

(6) Mortality for all Testing Activities:

(i) No more than 55 mortalities (11 per year) applicable to any small odontocete species from an impulse source.

(ii) No more than 1 large whale mortalities (no more than 1 in any given year) from vessel strike.

(iii) Nor more than 25 mortalities (no more than 20 in any given year) applicable to any small odontocete species from Ship Shock trials.

§ 218.83 Prohibitions.

Notwithstanding takings contemplated in § 218.82 and authorized by an LOA issued under § 216.106 of this chapter and § 218.87, no person in connection with the activities described in § 218.80 may:

(a) Take any marine mammal not specified in § 218.82(c);

(b) Take any marine mammal specified in § 218.82(c) other than by incidental take as specified in § 218.82(c);

(c) Take a marine mammal specified in § 218.82(c) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of these regulations or an LOA issued under § 216.106 of this chapter and § 218.87.

§ 218.84 Mitigation.

(a) When conducting training and testing activities, as identified in § 218.80, the mitigation measures contained in the LOA issued under § 216.106 of this chapter and § 218.87 must be implemented. These mitigation measures include, but are not limited to:

(1) Lookouts—The following are protective measures concerning the use of lookouts.

(i) Lookouts positioned on surface ships will be dedicated solely to diligent observation of the air and surface of the water. Their observation objectives will include, but are not limited to, detecting the presence of biological resources and recreational or fishing boats, observing buffer zones, and monitoring for vessel and personnel safety concerns.

(ii) Lookouts positioned in aircraft or on boats will, to the maximum extent practicable and consistent with aircraft and boat safety and training and testing requirements, comply with the observation objectives described above in paragraph (a)(1)(i) of this section.

(iii) Lookout measures for non-impulsive sound:

(A) With the exception of vessels less than 65 ft (20 m) in length and the Littoral Combat Ship (and similar vessels which are minimally manned), ships using low-frequency or hull-mounted mid-frequency active sonar sources associated with anti-submarine warfare and mine warfare activities at sea will have two Lookouts at the forward position of the vessel. For the purposes of this rule, low-frequency active sonar does not include surface towed array surveillance system low-frequency active sonar.

(B) While using low-frequency or hull-mounted mid-frequency active sonar sources associated with anti-submarine warfare and mine warfare activities at sea, vessels less than 65 ft (20 m) in length and the Littoral Combat Ship (and similar vessels which are minimally manned) will have one Lookout at the forward position of the vessel due to space and manning restrictions.

(C) Ships conducting active sonar activities while moored or at anchor (including pierside testing or maintenance) will maintain one Lookout.

(D) Ships or aircraft conducting non-hull-mounted mid-frequency active sonar, such as helicopter dipping sonar systems, will maintain one Lookout.

(E) Surface ships or aircraft conducting high-frequency or non-hull-mounted mid-frequency active sonar activities associated with anti-submarine warfare and mine warfare activities at sea will have one Lookout.

(iv) Lookout measures for explosives and impulsive sound:

(A) Aircraft conducting activities with IEER sonobuoys and explosive sonobuoys with 0.6 to 2.5 lbs net explosive weight will have one Lookout.

(B) Surface vessels conducting anti-swimmer grenade activities will have one Lookout.

(C) During general mine countermeasure and neutralization activities using up to a 500-lb net explosive weight detonation (bin E10 and below), vessels greater than 200 ft will have two Lookouts, while vessels less than 200 ft will have one Lookout.

(D) General mine countermeasure and neutralization activities using a 501 to 650-lb net explosive weight detonation (bin E11), will have two Lookouts. One Lookout will be positioned in an aircraft and one in a support vessel.

(E) Mine neutralization activities involving diver-placed charges using up to 100-lb net explosive weight detonation (E8) conducted with a positive control device will have a total of two Lookouts. One Lookout will be positioned in each of the two support vessels. When aircraft are used, the pilot or member of the aircrew will serve as an additional Lookout. All divers placing the charges on mines will support the Lookouts while performing their regular duties. The divers placing the charges on mines will report all marine mammal sightings to their dive support vessel.

(F) When mine neutralization activities using diver-placed charges with up to a 20-lb net explosive weight detonation (bin E6) are conducted with a time-delay firing device, four Lookouts will be used. Two Lookouts will be positioned in each of two small rigid hull inflatable boats. When aircraft are used, the pilot or member of the aircrew will serve as an additional Lookout. The divers placing the charges on mines will report all marine mammal sightings to their dive support vessel.

(G) Surface vessels conducting line charge testing will have one Lookout

(H) Surface vessels or aircraft conducting small- and medium-caliber gunnery exercises will have one Lookout.

(I) Surface vessels or aircraft conducting large-caliber gunnery exercises will have one Lookout.

(J) Surface vessels or aircraft conducting missile exercises against surface targets will have one Lookout.

(K) Aircraft conducting bombing exercises will have one Lookout.

(L) During explosive torpedo testing, one Lookout will be used and positioned in an aircraft.

(M) During sinking exercises, two Lookouts will be used. One Lookout will be positioned in an aircraft and one on a surface vessel.

(N) Prior to commencement, during, and after ship shock trials using up to 10,000 lb HBX charges, the Navy will have Lookouts or trained marine species observers positioned either in an aircraft or on multiple surface vessels. If vessels are the only available platform, a sufficient number will be used to provide visual observation of the mitigation zone comparable to that achieved by aerial surveys.

(O) Prior to commencement and after ship shock trials using up to 40,000 lb HBX charges, the Navy will have a minimum of two Lookouts or trained marine species observers positioned in an aircraft. During ship shock trials using up to 40,000 lb HBX charges, the Navy will have a total of four Lookouts or trained marine species observers. Two Lookouts will be positioned in an aircraft and two Lookouts will be positioned on a surface vessel.

(P) Each surface vessel supporting at-sea explosive testing will have at least one lookout.

(Q) During pile driving, one lookout will be used and positioned on the platform that will maximize the potential for marine mammal sightings

(e.g., the shore, an elevated causeway, or on a ship).

(R) Surface vessels conducting explosive and non-explosive large-caliber gunnery exercises will have one lookout. This may be the same lookout used during large-caliber gunnery exercises with a surface target.

(v) Lookout measures for physical strike and disturbance:

(A) While underway, surface ships will have at least one lookout.

(B) During activities using towed in-water devices, one lookout will be used.

(C) Activities involving non-explosive practice munitions (e.g., small-, medium-, and large-caliber gunnery exercises) using a surface target will have one lookout.

(D) During activities involving non-explosive bombing exercises, one lookout will be used.

(2) *Mitigation Zones*—The following are protective measures concerning the implementation of mitigation zones.

(i) Mitigation zones will be measured as the radius from a source and represent a distance to be monitored.

(ii) Visual detections of marine mammals within a mitigation zone will be communicated immediately to a watch station for information dissemination and appropriate action.

(iii) Mitigation zones for non-impulsive sound:

(A) When marine mammals are visually detected, the Navy shall ensure that low-frequency and hull-mounted mid-frequency active sonar transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals are within 1,000 yd (914 m) of the sonar dome (the bow).

(B) The Navy shall ensure that low-frequency and hull-mounted mid-frequency active sonar transmissions are limited to at least 10 dB below the equipment's normal operating level if any detected marine mammals are within 500 yd (457 m) of the sonar dome.

(B) The Navy shall ensure that low-frequency and hull-mounted mid-frequency active sonar transmissions are ceased if any visually detected marine mammals are within 200 yd (183 m) of the sonar dome. Transmissions will not resume until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yd beyond the location of the last detection.

(C) When marine mammals are visually detected, the Navy shall ensure that high-frequency and non-hull-mounted mid-frequency active sonar transmission levels are ceased if any visually detected marine mammals are within 200 yd (183 m) of the source. Transmissions will not resume until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yd beyond the location of the last detection.

(D) Special conditions applicable for dolphins and porpoises only: If, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the Officer of the Deck concludes that dolphins or porpoises are deliberately closing to ride the vessel's bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.

(E) Prior to start up or restart of active sonar, operators shall check that the mitigation zone radius around the sound source is clear of marine mammals.

(iv) Mitigation zones for explosive and impulsive sound:

(A) A mitigation zone with a radius of 600 yd (549 m) shall be established for IEER sonobuoys (bin E4).

(B) A mitigation zone with a radius of 350 yd (320 m) shall be established for explosive sonobuoys using 0.6 to 2.5 lb net explosive weight (bin E3).

(C) A mitigation zone with a radius of 200 yd (183 m) shall be established for anti-swimmer grenades (bin E2).

(D) A mitigation zone ranging from 350 yd (320 m) to 850 yd (777 m), dependent on charge size, shall be established for mine countermeasure and neutralization activities using diver placed positive control firing devices. Mitigation zone distances are specified for charge size in Table 11–2 of the Navy's application.

(E) A mitigation zone with a radius of 1,000 yd (915 m) shall be established for mine neutralization diver placed mines using time-delay firing devices (bin E6).

(F) A mitigation zone with a radius of 900 yd (823 m) shall be established for ordnance testing (line charge testing) (bin E4).

(G) A mitigation zone with a radius of 200 yd (183 m) shall be established for small- and medium-caliber gunnery exercises with a surface target (bin E2).

(H) A mitigation zone with a radius of 600 yd (549 m) shall be established for large-caliber gunnery exercises with a surface target (bin E5).

(I) A mitigation zone with a radius of 900 yd (823 m) shall be established for missile exercises with up to 250 lb net explosive weight and a surface target (bin E9).

(J) A mitigation zone with a radius of 2,000 yd (1.8 km) shall be established for missile exercises with 251 to 500 lb net explosive weight and a surface target (E10).

(K) A mitigation zone with a radius of 2,500 yd (2.3 km) shall be established for bombing exercises (bin E12).

(L) A mitigation zone with a radius of 2,100 yd (1.9 km) shall be established for torpedo (explosive) testing (bin E11).

(M) A mitigation zone with a radius of 2.5 nautical miles shall be established for sinking exercises (bin E12).

(N) A mitigation zone with a radius of 1,600 yd (1.4 km) shall be established for at-sea explosive testing (bin E5).

(O) A mitigation zone with a radius of 60 yd (55 m) shall be established for elevated causeway system pile driving.

(P) A mitigation zone with a radius of 3.5 nautical miles shall be established for a shock trial.

(v) Mitigation zones for vessels and in-water devices:

(A) A mitigation zone of 500 yd (457 m) for observed whales and 200 yd (183 m) for all other marine mammals (except bow riding dolphins) shall be established for all vessel movement, providing it is safe to do so.

(B) A mitigation zone of 250 yd (229 m) shall be established for all towed in-water devices, providing it is safe to do so.

(vi) Mitigation zones for non-explosive practice munitions:

(A) A mitigation zone of 200 yd (183 m) shall be established for small, medium, and large caliber gunnery exercises using a surface target.

(B) A mitigation zone of 1,000 yd (914 m) shall be established for bombing exercises.

(3) *Protective Measures Specific to North Atlantic Right Whales.*

(i) North Atlantic Right Whale Calving Habitat off the Southeast United States.

(A) The Southeast Right Whale Mitigation Area is defined by a 5 nm (9.3 km) buffer around the coastal waters between 31–15 N. lat. and 30–15 N. lat. extending from the coast out 15 nm (27.8 km), and the coastal waters between 30–15 N. lat. to 28–00 N. lat. from the coast out to 5 nm (9.3 km).

(B) Between November 15 and April 15, the following activities are prohibited within the Southeast Right Whale Mitigation Area:

(*1*) High-frequency and non-hull mounted mid-frequency active sonar (except helicopter dipping)

(*2*) Missile activities (explosive and non-explosive)

(*3*) Bombing exercises (explosive and non-explosive)

(*4*) Underwater detonations

(*5*) Improved extended echo ranging sonobuoy exercises

(*6*) Torpedo exercises (explosive)

(*7*) Small-, medium-, and large-caliber gunnery exercises

(C) Prior to transiting or training in the Southeast Right Whale Mitigation Area, ships shall contact Fleet Area Control and Surveillance Facility, Jacksonville, to obtain the latest whale sightings and other information needed to make informed decisions regarding safe speed and path of intended movement. Submarines shall contact Commander, Submarine Force United States Atlantic Fleet for similar information.

(D) The following specific mitigation measures apply to activities occurring within the Southeast Right Whale Mitigation Area:

(*1*) When transiting within the Southeast Right Whale Mitigation Area, vessels shall exercise extreme caution and proceed at a slow safe speed. The speed shall be the slowest safe speed that is consistent with mission, training, and operations.

(*2*) Speed reductions (adjustments) are required when a North Atlantic right whale is sighted by a vessel, when the vessel is within 9 km (5 nm) of a sighting reported within the past 12 hours, or when operating at night or during periods of poor visibility.

(*3*) Vessels shall avoid head-on approaches to North Atlantic right whales(s) and shall maneuver to maintain at least 457 m (500 yd) of separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when a change of course would create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in their ability to maneuver.

(*4*) Vessels shall minimize to the extent practicable north-south transits through the Southeast Right Whale Mitigation Area. If transit in a north-south direction is required during training or testing activities, the Navy shall implement the measures described above.

(*5*) Ship, surfaced subs, and aircraft shall report any North Atlantic right whale sightings to Fleet Area Control and Surveillance Facility, Jacksonville, by the most convenient and fastest means. The sighting report shall include the time, latitude/longitude, direction of movement and number and description of whale (i.e., adult/calf)

(ii) North Atlantic Right Whale Foraging Habitat off the Northeast United States.

(A) The Northeast Right Whale Mitigation Area consists of two areas: the Great South Channel and Cape Cod Bay. The Great South Channel is defined by the following coordinates: 41-40 N. Lat., 69-45 W. Long.; 41-00 N. Lat., 69-05 W. Long.; 41-38 N. Lat., 68-13 W. Long.; and 42-10 N. Lat., 68-31 W. Long. Cape Cod Bay is defined by the following coordinates: 42-04.8 N. Lat., 70-10 W. Long.; 42-10 N. Lat., 70-15 W. Long.; 42-12 N. Lat., 70-30 W. Long.; 41-46.8 N. Lat., 70-30 W. Long.; and on the south and east by the interior shoreline of Cape Cod.

(B) Year-round, the following activities are prohibited within the Northeast Right Whale Mitigation Area:

(*1*) Improved extended echo ranging sonobuoy exercises in or within 5.6 km (3 nm) of the mitigation area.

(*2*) Bombing exercises (explosive and non-explosive)

(*3*) Underwater detonations

(*4*) Torpedo exercises (explosive)

(C) Prior to transiting or training in the Northeast Right Whale Mitigation Area, ships and submarines shall contact the Northeast Right Whale Sighting Advisory System to obtain the latest whale sightings and other information needed to make informed decisions regarding safe speed and path of intended movement.

(D) The following specific mitigation measures apply to activities occurring within the Northeast Right Whale Mitigation Area:

(*1*) When transiting within the Northeast Right Whale Mitigation Area, vessels shall exercise extreme caution and proceed at a slow safe speed. The speed shall be the slowest safe speed that is consistent with mission, training, and operations.

(*2*) Speed reductions (adjustments) are required when a North Atlantic right whale is sighted by a vessel, when the vessel is within 9 km (5 nm) of a sighting reported within the past week, or when operating at night or during periods of poor visibility.

(*3*) When conducting TORPEXs, the following additional speed restrictions shall be required: during transit, surface vessels and submarines shall maintain a speed of no more than 19 km/hour (10 knots); during torpedo firing exercises, vessel speeds should, where feasible, not exceed 10 knots; when a submarine is used as a target, vessel speeds should, where feasible, not exceed 18 knots; when surface vessels are used as targets, vessels may exceed 18 knots for a short period of time (e.g., 10–15 minutes).

(*4*) Vessels shall avoid head-on approaches to North Atlantic right whales(s) and shall maneuver to maintain at least 457 m (500 yd) of separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when a change of course would create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in their ability to maneuver.

(*5*) Non-explosive torpedo testing shall be conducted during daylight hours only in Beaufort sea states of 3 or less to increase the probability of marine mammal detection.

(*6*) Non-explosive torpedo testing activities shall not commence if concentrations of floating vegetation (*Sargassum* or kelp patties) are observed in the vicinity.

(*7*) Non-explosive torpedo testing activities shall cease if a marine mammal is visually detected within the immediate vicinity of the activity. The tests may recommence when any one of the following conditions are met: the animal is observed exiting the immediate vicinity of the activity; the animal is thought to have exited the immediate vicinity based on its course and speed; or the immediate vicinity of the activity has been clear from any additional sightings for a period of 30 minutes.

(iii) North Atlantic Right Whale Mid-Atlantic Migration Corridor

(A) The Mid-Atlantic Right Whale Mitigation Area consists of the following areas:

(*1*) Block Island Sound: the area bounded by 40-51-53.7 N. Lat., 70-36-44.9 W. Long.; and 41-20-14.1 N. Lat., 70-49-44.1 W. Long.

(*2*) New York and New Jersey: 37 km (20 nm) seaward of the line between 40-29-42.2 N. Lat., 73-55-57.6 W. Long.

(*3*) Delaware Bay: 38-52-27.4 N. Lat., 75-01-32.1 W. Long.

(*4*) Chesapeake Bay: 37-00-36.9 N. Lat., 75-57-50.5 W. Long.

(*5*) Morehead City, North Carolina: 34-41-32 N. Lat., 76-40-08.3 W. Long.

(*6*) Wilmington, North Carolina, through South Carolina, and to Brunswick, Georgia: within a continuous area 37 km (20 nm) from shore and west back to shore bounded by 34-10-30 N. Lat., 77-49-12 W. Long.; 33-56-42 N. Lat., 77-31-30 W. Long.; 33-36-30 N. Lat., 77-47-06 W. Long.; 33-28-24 N. Lat., 78-32-30 W. Long.; 32-59-06 N. Lat., 78-50-18 W. Long.; 31-50 N. Lat., 80-33-12 W. Long.; 31-27 N. Lat., 80-51-36 W. Long.

(B) Between November 1 and April 30, when transiting within the Mid-Atlantic Right Whale Mitigation Area, vessels shall exercise extreme caution and proceed at a slow safe speed. The speed shall be the slowest safe speed that is consistent with mission, training, and operations.

(iv) Planning Awareness Areas.

(A) The Navy shall avoid planning exercises involving the use of active sonar in the specified planning

awareness areas (PAAs—see Figure 11-1 in the Navy's LOA application) where feasible. Should national security require the conduct of more than five major exercises (C2X, JTFEX, SEASWITI, or similar scale event) in these areas (meaning all or a portion of the exercise) per year, the Navy shall provide NMFS with prior notification and include the information in any associated after-action or monitoring reports.

(4) *Stranding Response Plan.*

(i) The Navy shall abide by the current Stranding Response Plan for Major Navy Training Exercises in the Study Area, to include the following measures:

(A) Shutdown Procedures—When an Uncommon Stranding Event (USE—defined in § 218.71(b)(1)) occurs during a Major Training Exercise (MTE) in the AFTT Study Area, the Navy shall implement the procedures described below.

(*1*) The Navy shall implement a shutdown (as defined § 218.81(b)(2)) when advised by a NMFS Office of Protected Resources Headquarters Senior Official designated in the AFTT Study Area Stranding Communication Protocol that a USE involving live animals has been identified and that at least one live animal is located in the water. NMFS and the Navy will maintain a dialogue, as needed, regarding the identification of the USE and the potential need to implement shutdown procedures.

(*2*) Any shutdown in a given area shall remain in effect in that area until NMFS advises the Navy that the subject(s) of the USE at that area die or are euthanized, or that all live animals involved in the USE at that area have left the area (either of their own volition or herded).

(*3*) If the Navy finds an injured or dead animal floating at sea during an MTE, the Navy shall notify NMFS immediately or as soon as operational security considerations allow. The Navy shall provide NMFS with species or description of the animal(s), the condition of the animal(s), including carcass condition if the animal(s) is/are dead, location, time of first discovery, observed behavior (if alive), and photo or video (if available). Based on the information provided, NFMS will determine if, and advise the Navy whether a modified shutdown is appropriate on a case-by-case basis.

(*4*) In the event, following a USE, that qualified individuals are attempting to herd animals back out to the open ocean and animals are not willing to leave, or animals are seen repeatedly heading for the open ocean but turning back to shore, NMFS and the Navy shall coordinate (including an investigation of other potential anthropogenic stressors in the area) to determine if the proximity of mid-frequency active sonar training activities or explosive detonations, though farther than 14 nautical miles from the distressed animal(s), is likely contributing to the animals' refusal to return to the open water. If so, NMFS and the Navy will further coordinate to determine what measures are necessary to improve the probability that the animals will return to open water and implement those measures as appropriate.

(B) Within 72 hours of NMFS notifying the Navy of the presence of a USE, the Navy shall provide available information to NMFS (per the AFTT Study Area Communication Protocol) regarding the location, number and types of acoustic/explosive sources, direction and speed of units using mid-frequency active sonar, and marine mammal sightings information associated with training activities occurring within 80 nautical miles (148 km) and 72 hours prior to the USE event. Information not initially available regarding the 80-nautical miles (148-km), 72-hour period prior to the event will be provided as soon as it becomes available. The Navy will provide NMFS investigative teams with additional relevant unclassified information as requested, if available.

(ii) [Reserved]

(b) [Reserved]

§ 218.85 Requirements for monitoring and reporting.

(a) As outlined in the AFTT Study Area Stranding Communication Plan, the Holder of the Authorization must notify NMFS immediately (or as soon as clearance procedures allow) if the specified activity identified in § 218.80 is thought to have resulted in the mortality or injury of any marine mammals, or in any take of marine mammals not identified in § 218.81.

(b) The Holder of the LOA must conduct all monitoring and required reporting under the LOA, including abiding by the AFTT Monitoring Plan.

(c) General Notification of Injured or Dead Marine Mammals—Navy personnel shall ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as clearance procedures allow) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, an Navy training or testing activity utilizing mid- or high-frequency active sonar, or underwater explosive detonations. The Navy shall provide NMFS with species identification or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). The Navy shall consult the Stranding Response Plan to obtain more specific reporting requirements for specific circumstances.

(d) Annual AFTT Monitoring Plan Report—The Navy shall submit an annual report describing the implementation and results of the AFTT Monitoring Plan, described in this section. Data collection methods will be standardized across range complexes and study areas to allow for comparison in different geographic locations. Although additional information will be gathered, the protected species observers collecting marine mammal data pursuant to the AFTT Monitoring Plan shall, at a minimum, provide the same marine mammal observation data required in this section. The AFTT Monitoring Plan may be provided to NMFS within a larger report that includes the required Monitoring Plan reports from multiple range complexes and study areas.

(e) Annual AFTT Exercise Report—The Navy shall submit an annual AFTT Exercise Report. This report shall contain information identified in paragraphs (e)(1) through (5) of this section.

(1) MFAS/HFAS Major Training Exercises—This section shall contain the following information for Major Training Exercises conducted in the AFTT Study Area:

(i) Exercise Information (for each MTE):

(A) Exercise designator.

(B) Date that exercise began and ended.

(C) Location.

(D) Number and types of active sources used in the exercise.

(E) Number and types of passive acoustic sources used in exercise.

(F) Number and types of vessels, aircraft, etc., participating in exercise.

(G) Total hours of observation by watchstanders.

(H) Total hours of all active sonar source operation.

(I) Total hours of each active sonar source bin.

(J) Wave height (high, low, and average during exercise).

(ii) Individual marine mammal sighting info (for each sighting in each MTE).

(A) Location of sighting.

(B) Species (if not possible, indication of whale/dolphin/pinniped).

(C) Number of individuals.

(D) Calves observed (y/n).

(E) Initial Detection Sensor.

(F) Indication of specific type of platform observation made from (including, for example, what type of surface vessel, i.e., FFG, DDG, or CG).

(G) Length of time observers maintained visual contact with marine mammal.

(H) Wave height (in feet).

(I) Visibility.

(J) Sonar source in use (y/n).

(K) Indication of whether animal is <200 yd, 200 to 500 yd, 500 to 1,000 yd, 1,000 to 2,000 yd, or >2,000 yd from sonar source in paragraph (e)(1)(ii)(J) of this section.

(L) Mitigation Implementation—Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was.

(M) If source in use (see paragraph (e)(1)(ii)(J) of this section) is hull-mounted, true bearing of animal from ship, true direction of ship's travel, and estimation of animal's motion relative to ship (opening, closing, parallel).

(N) Observed behavior—Watchstanders shall report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming, etc.).

(iii) An evaluation (based on data gathered during all of the MTEs) of the effectiveness of mitigation measures designed to avoid exposing animals to mid-frequency active sonar. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

(2) ASW Summary—This section shall include the following information as summarized from both MTEs and non-major training exercises (i.e., unit-level exercises, such as TRACKEXs):

(i) Total annual hours of each sonar source bin.

(ii) Cumulative Impact Report—To the extent practicable, the Navy, in coordination with NMFS, shall develop and implement a method of annually reporting non-major training exercises utilizing hull-mounted sonar. The report shall present an annual (and seasonal, where practicable) depiction of non-major training exercises geographically across the AFTT Study Area. The Navy shall include (in the AFTT annual report) a brief annual progress update on the status of development until an agreed-upon (with NMFS) method has been developed and implemented.

(3) SINKEXs—This section shall include the following information for each SINKEX completed that year:

(i) Exercise information (gathered for each SINKEX):

(A) Location.

(B) Date and time exercise began and ended.

(C) Total hours of observation by watchstanders before, during, and after exercise.

(D) Total number and types of explosive source bins detonated.

(E) Number and types of passive acoustic sources used in exercise.

(F) Total hours of passive acoustic search time.

(G) Number and types of vessels, aircraft, etc., participating in exercise.

(H) Wave height in feet (high, low, and average during exercise).

(I) Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted.

(ii) Individual marine mammal observation (by Navy lookouts) information (gathered for each marine mammal sighting):

(A) Location of sighting.

(B) Species (if not possible, indicate whale, dolphin, or pinniped).

(C) Number of individuals.

(D) Whether calves were observed.

(E) Initial detection sensor.

(F) Length of time observers maintained visual contact with marine mammal.

(G) Wave height.

(H) Visibility.

(I) Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after.

(J) Distance of marine mammal from actual detonations (or target spot if not yet detonated).

(K) Observed behavior—Watchstanders will report, in plain language and without trying to categorize in any way, the observed behavior of the animal(s) (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming etc.), including speed and direction.

(L) Resulting mitigation implementation—Indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long.

(M) If observation occurs while explosives are detonating in the water, indicate munition type in use at time of marine mammal detection.

(4) IEER Summary—This section shall include an annual summary of the following IEER information:

(i) Total number of IEER events conducted in the AFTT Study Area.

(ii) Total expended/detonated rounds (buoys).

(iii) Total number of self-scuttled IEER rounds.

(5) Explosives Summary—To the extent practicable, the Navy will provide the information described below for all of their explosive exercises. Until the Navy is able to report in full the information below, they will provide an annual update on the Navy's explosive tracking methods, including improvements from the previous year.

(i) Total annual number of each type of explosive exercises (of those identified as part of the ''specified activity'' in this subpart) conducted in the AFTT Study Area.

(ii) Total annual expended/detonated rounds (missiles, bombs, etc.) for each explosive source bin.

(f) Sonar Exercise Notification—The Navy shall submit to the NMFS Office of Protected Resources (specific contact information to be provided in LOA) either an electronic (preferably) or verbal report within fifteen calendar days after the completion of any major exercise (COMPTUEX, JTFEX, SEASWITI or similar scale event) indicating:

(1) Location of the exercise.

(2) Beginning and end dates of the exercise.

(3) Type of exercise (e.g., COMPTUEX, JTFEX, SEASWITI or similar scale event).

(g) AFTT Study Area 5-yr Comprehensive Report—The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and explosive exercises for which annual reports are required (Annual AFTT Exercise Reports and AFTT Monitoring Plan reports). This report will be submitted at the end of the fourth year of the rule (November 2018), covering activities that have occurred through June 1, 2018.

(h) Comprehensive National ASW Report—By June 2019, the Navy shall submit a draft Comprehensive National Report that analyzes, compares, and summarizes the active sonar data gathered (through January 1, 2019) from the watchstanders in accordance with the Monitoring Plans for HSTT, AFTT, MITT, and NWTT.

(i) The Navy shall respond to NMFS' comments and requests for additional information or clarification on the AFTT Comprehensive Report, the draft National ASW report, the Annual AFTT Exercise Report, or the Annual AFTT Monitoring Plan report (or the multi-Range Complex Annual Monitoring Plan Report, if that is how the Navy chooses to submit the information) if submitted within 3 months of receipt. These

reports will be considered final after the Navy has addressed NMFS' comments or provided the requested information, or three months after the submittal of the draft if NMFS does not provide comment.

§ 218.86 Applications for Letters of Authorization.

To incidentally take marine mammals pursuant to the regulations in this subpart, the U.S. citizen (as defined by § 216.106 of this chapter) conducting the activity identified in § 218.80(c) (the U.S. Navy) must apply for and obtain either an initial LOA in accordance with § 218.87 or a renewal under § 218.88.

§ 218.87 Letters of Authorization.

(a) An LOA, unless suspended or revoked, will be valid for a period of time not to exceed the period of validity of this subpart.

(b) Each LOA will set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (i.e., mitigation); and

(3) Requirements for mitigation, monitoring and reporting.

(c) Issuance and renewal of the LOA will be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s).

§ 218.88 Renewal of Letters of Authorization.

(a) A Letter of Authorization issued under § 216.106 of this chapter and § 218.87 for the activity identified in § 218.80(c) will be renewed based upon:

(1) Notification to NMFS that the activity described in the application submitted under this sectionwill be undertaken and that there will not be a substantial modification to the described work, mitigation, or monitoring undertaken during the upcoming period of validity;

(2) Timely receipt (by the dates indicated in this subpart) of the monitoring reports required under § 218.85(c) through (j); and

(3) A determination by the NMFS that the mitigation, monitoring, and reporting measures required under § 218.84 and the LOA issued under § 216.106 of this chapter and § 218.87, were undertaken and will be undertaken during the upcoming period of validity of a renewed Letter of Authorization.

(b) If a request for a renewal of an LOA issued under this § 216.106 of this chapter and § 218.87 indicates that a substantial modification, as determined by NMFS, to the described work, mitigation or monitoring undertaken during the upcoming season will occur, NMFS will provide the public a period of 30 days for review and comment on the request. Review and comment on renewals of LOAs are restricted to:

(1) New cited information and data indicating that the determinations made in this document are in need of reconsideration; and

(2) Proposed changes to the mitigation and monitoring requirements contained in these regulations or in the current LOA.

(c) A notice of issuance or denial of an LOA renewal will be published in the **Federal Register**.

(d) NMFS, in response to new information and in consultation with the Navy, may modify the mitigation or monitoring measures in subsequent LOAs if doing so creates a reasonable likelihood of more effectively accomplishing the goals of mitigation and monitoring. Below are some of the possible sources of new data that could contribute to the decision to modify the mitigation or monitoring measures:

(1) Results from the Navy's monitoring from the previous year (either from the AFTT Study Area or other locations).

(2) Compiled results of Navy-funded research and development (R&D) studies (presented pursuant to the ICMP (§ 218.85(d)).

(3) Results from specific stranding investigations (either from the AFTT Study Area or other locations, and involving coincident mid- or high-frequency active sonar or explosives training or not involving coincident use).

(4) Results from the Long Term Prospective Study.

(5) Results from general marine mammal and sound research (funded by the Navy (or otherwise).

§ 218.89 Modifications to Letters of Authorization.

(a) Except as provided in paragraph (b) of this section, no substantive modification (including withdrawal or suspension) to the LOA by NMFS, issued pursuant to § 216.106 of this chapter and § 218.87 and subject to the provisions of this subpart shall be made until after notification and an opportunity for public comment has been provided. For purposes of this paragraph, a renewal of an LOA under § 218.88, without modification (except for the period of validity), is not considered a substantive modification.

(b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 218.82(c), an LOA issued pursuant to § 216.106 of this chapter and § 218.87 may be substantively modified without prior notification and an opportunity for public comment. Notification will be published in the **Federal Register** within 30 days subsequent to the action.

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Part V

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2002–0058; FRL–9676–8]

RIN 2060–AR13

National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; notice of final action on reconsideration.

SUMMARY: In this action the EPA is taking final action on its reconsideration of certain issues in the emission standards for the control of hazardous air pollutants from new and existing industrial, commercial, and institutional boilers and process heaters at major sources of hazardous air pollutants, which were issued under section 112 of the Clean Air Act. As part of this action, the EPA is making technical corrections to the final rule to clarify definitions, references, applicability and compliance issues raised by petitioners and other stakeholders affected by this rule. On March 21, 2011, the EPA promulgated national emission standards for this source category. On that same day, the EPA also published a notice announcing its intent to reconsider certain provisions of the final rule. Following these actions, the Administrator received several petitions for reconsideration. After consideration of the petitions received, on December 23, 2011, the EPA proposed revisions to certain provisions of the March 21, 2011, final rule, and requested public comment on several provisions of the final rule. The EPA is now taking final action on the proposed reconsideration.

DATES: The May 18, 2011 (76 FR28661), delay of the effective date revising subpart DDDDD at 76 FR 15451 (March 21, 2011) is lifted January 31, 2013. The amendments in this rule to 40 CFR part 63, subpart DDDDD are effective as of April 1, 2013.

ADDRESSES: The EPA established a single docket under Docket ID No. EPA–HQ–OAR–2002–0058 for this action. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, e.g., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the EPA's Docket Center, Public Reading Room, EPA West Building, Room 3334, 1301 Constitution Avenue NW., Washington, DC 20004. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. Jim Eddinger, Energy Strategies Group, Sector Policies and Programs Division, (D243–01), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; Telephone number: (919) 541–5426; Fax number (919) 541–5450; Email address: *eddinger.jim@epa.gov*.

SUPPLEMENTARY INFORMATION:

Executive Summary

Purpose of This Regulatory Action

The EPA is taking final action on its proposed reconsideration of certain provisions of its March 21, 2011, final rule that established standards for new and existing industrial, commercial, and institutional boilers and process heaters at major sources of hazardous air pollutants. Section 112(d) of the CAA requires the EPA to regulate HAP from major stationary sources based on the performance of MACT. Section 112(h) of the CAA allows the EPA to establish work practice standards in lieu of numerical emission limits only in cases where the agency determines that it is not feasible to prescribe or enforce an emission standard, including circumstances in which the agency determines that the application of measurement methodology is not practicable due to technological and economic limitations. The EPA is revising certain MACT standards established in March 2011 for boilers and process heaters, including standards for CO—as a surrogate for organic HAP; HCl—as a surrogate for acid gas HAP; Hg; TSM or filterable PM—as a surrogate for non-Hg metallic HAP; and dioxin/furan.

This final rule amends certain provisions of the final rule issued by the EPA on March 21, 2011. The EPA delayed the effective date of the 2011 rule in a May 18, 2011, notice, but that delay notice was vacated by the U.S. District Court for the District of Columbia on January 9, 2012, and the March 2011 final rule was, therefore, in effect until publication of this action.

Summary of Major Reconsideration Provisions

In general, this final rule requires facilities classified as major sources of HAP with affected boilers or process heaters to reduce emissions of harmful toxic air emissions from these combustion sources. This will improve air quality and protect public health in communities where these facilities are located.

Recognizing the diversity of this source category and the multiple sectors of the economy this final rule effects, the EPA is revising certain subcategories for boilers and process heaters in this action that were established in the March 2011 final rule, based on the design of the combustion equipment. These revisions result in 19 subcategories for the boilers and process heaters source category. Numerical emission limits are established for most of the subcategories for five pollutants, CO, HCl, Hg, and PM or TSM. The review of existing data and consideration of new data have resulted in changes to some of the emission limits contained in the March 2011 final rule. Overall, for both new and existing affected units, about 30 percent of the emission limits are more stringent, half are less stringent, and 20 percent unchanged as compared to the March 2011 final rule. Also, based on its review and analysis of new data submissions, the EPA is establishing an alternative emission standard for CO, based on CEMS data for several subcategories with CO CEMS data available. This alternative standard is based on a 30-day rolling average for subcategories for which sufficient CEMS data were available for more than a 30-day period, or a 10-day rolling average for subcategories for which CEMS data were available for less than a 30-day period, and provides additional compliance flexibility to sources. All of the subcategories are subject to periodic tune-up work practices for dioxin/furan emissions.

The compliance dates for the rule are January 31, 2016, for existing sources and, January 31, 2013, or upon startup, whichever is later, for new sources. New sources are defined as sources that began operation on or after June 4, 2010.

Costs and Benefits

The final rule affects 1,700 existing major source facilities with an estimated 14,136 boilers and process heaters and the EPA projects an additional 1,844 new boilers and process heaters to be subject to this final rule over the next 3

years. This final rule affects multiple sectors of the economy including small entities. Table 1 summarizes the costs and benefits associated with this final rule. A more detailed discussion of the costs and benefits of this final rule is provided in section VI of this preamble.

TABLE 1—SUMMARY OF THE MONETIZED BENEFITS, SOCIAL COSTS AND NET BENEFITS FOR THE FINAL BOILER MACT RECONSIDERATION IN 2015

[Millions of 2008$] [1]

	3 percent discount rate	7 percent discount rate
Total Monetized Benefits [2]	$27,000 to $67,000	$25,000 to $61,000.
Total Social Costs [3]	$1,400 to $1,600	$1,400 to $1,600.
Net Benefits	$26,000 to $65,000	$23,000 to $59,000.
Non-monetized Benefits	Health effects from exposure to HAP (39,000 tons of HCl, 500 tons of HF, 3,100 to 5,300 pounds of Hg and 2,500 tons of other metals). Health effects from exposure to other criteria pollutants (180,000 tons of CO and 572,000 tons of SO_2). Ecosystem effects. Visibility impairment.	

[1] All estimates are for the implementation year (2015), and are rounded to two significant figures.

[2] The total monetized co-benefits reflect the human health benefits associated with reducing exposure to $PM_{2.5}$ through reductions of $PM_{2.5}$ precursors such as directly emitted particles, SO_2, and NO_X and reducing exposure to ozone through reductions of VOC. It is important to note that the monetized benefits include many but not all health effects associated with $PM_{2.5}$ exposure. Monetized benefits are shown as a range from Pope et al. (2002) to Laden et al. (2006). These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to support the development of differential effects estimates by particle type. These estimates include the energy disbenefits valued at $24 million (using the 3 percent discount rate), which do not change the rounded totals. CO_2-related disbenefits were calculated using the ''social cost of carbon,'' which is discussed further in the RIA.

[3] The methodology used to estimate social costs for one year in the multimarket model using surplus changes results in the same social costs for both discount rates.

Acronyms and Abbreviations. The following acronyms and abbreviations are used in this document.

ACC American Chemistry Council
ACCCI American Coke and Coal Chemicals Institute
AF&PA American Forest and Paper Association
AHFA American Home Furnishings Alliance
AISI American Iron and Steel Institute
AMP American Municipal Power Inc.
AIE Alliance for Industrial Efficiency
APCD air pollution control devices
API American Petroleum Institute
AIF Auto Industry Forum
BFG Blast furnace gas
BLDS Bag leak detection system
BCSE The Business Council for Sustainable Energy
CIBO Council of Industrial Boiler Owners
CO Carbon monoxide
CO_2 Carbon dioxide
CEMS Continuous emissions monitoring system
CEG Citizens Energy Group
CAA Clean Air Act
CFR Code of Federal Regulations
CPMS Continuous parameter monitoring system
CMI CraftMaster Manufacturing Inc.
ERT Electronic Reporting Tool
ESP Electrostatic precipitator
EPA Environmental Protection Agency
FBC Fluidized bed combustion
FR Federal Register
FSI Florida Sugar Industry
GPSP Great Plains Synfuels Plant
HAP Hazardous air pollutants
HBES Health-based emissions standard
HF Hydrogen fluoride
Hg Mercury
HCl Hydrogen chloride
kWh Kilowatt hours
ISO International Standards Organization
lb Pounds
LFG Landfill gas
MACT Maximum achievable control technology
MATS Mercury Air Toxics Standards
MSU Michigan State University
MMBtu Million British thermal units
NESHAP National Emission Standards for Hazardous Air Pollutants
NPRA National Petrochemical and Refiners Association
NTTAA National Technology Transfer and Advancement Act
NAICS North American Industry Classification System
NO_X Nitrogen oxide
NSR New Source Review
OMB Office of Management and Budget
PM Particulate matter
PSU Penn State University
PS Performance Specification
ppm Parts per million
QA Quality assurance
QC Quality control
RFA Regulatory Flexibility Act
RIA Regulatory Impact Analysis
RPU Rochester Public Utilities
RTC Response to comment
SCR Selective catalytic reduction
SNCR Selective non-catalytic reduction
SO_2 Sulfur dioxide
TBtu/yr Trillion British thermal units per year
THC Total hydrocarbon
TSM Total selected metals
TTN Technology Transfer Network
tpy Tons per year
UMRA Unfunded Mandates Reform Act of 1995
U.S. United States
USCHPA US Clean Heat Power Association
US Sugar United States Sugar Corporation
UPL Upper prediction limit
UARG Utility Air Regulatory Group
VCS Voluntary Consensus Standards
VOC Volatile organic compounds
WM Waste Management Inc.
WEPCO Wisconsin Electric Power Company
WWW Worldwide Web

Organization of this Document. The information presented in this preamble is organized as follows:

I. General Information

A. Does this action apply to me?

The regulated categories and entities potentially affected by this action include:

TABLE 2—POTENTIAL REGULATED CATEGORIES AND ENTITIES AFFECTED

Category	NAICS code[1]	Examples of potentially regulated entities
Any industry using a boiler or process heater as defined in the final rule	211	Extractors of crude petroleum and natural gas.
	321	Manufacturers of lumber and wood products.
	322	Pulp and paper mills.
	325	Chemical manufacturers.
	324	Petroleum refineries, and manufacturers of coal products.
	316, 326, 339	Manufacturers of rubber and miscellaneous plastic products.
	331	Steel works, blast furnaces.
	332	Electroplating, plating, polishing, anodizing, and coloring.
	336	Manufacturers of motor vehicle parts and accessories.
	221	Electric, gas, and sanitary services.
	622	Health services.
	611	Educational services.

[1] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this reconsideration action. To determine whether your facility may be affected by this reconsideration action, you should examine the applicability criteria in 40 CFR 63.7485 of subpart DDDDD (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters). If you have any questions regarding the applicability of this final rule to a particular entity, consult either the air permitting authority for the entity or your EPA regional representative, as listed in 40 CFR 63.13 of subpart A (General Provisions).

B. Where can I get a copy of this document?

In addition to being available in the docket, an electronic copy of this action will also be available on the WWW through the TTN. Following signature, a copy of the action will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg/*. The TTN provides information and technology exchange in various areas of air pollution control.

C. Judicial Review

Under the CAA section 307(b)(1), judicial review of this final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by April 1, 2013. Under CAA section 307(d)(7)(B), only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Note, under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce these requirements.

II. Background Information

A. Chronological History of Related Actions

On March 21, 2011, the EPA issued final standards for new and existing industrial, commercial, and institutional boilers and process heaters, pursuant to its authority under section 112 of the CAA. On the same day as the final rule was issued, the EPA stated in a separate notice that it planned to initiate a reconsideration of several provisions of the final rule. This reconsideration notice identified several provisions of the March 2011 final rule where additional public comment was appropriate. This notice also identified several issues of central relevance to the rulemaking where reconsideration was appropriate under CAA section 307(d).

On May 18, 2011, the EPA issued a notice to postpone the effective date of the March 21, 2011 final rule. Following promulgation of the final rule, the EPA received petitions for reconsideration from the following organizations

(''Petitioners''): AIE, USCHPA, Alyeska Pipeline, ACC, AHFA, AISI, ACCCI, AMP, API, NPRA, AIF, Citizens Energy Group (CEG), CIBO, CMI, District Energy St. Paul, FSI, GPSP, Hovensa L.L.C., Tesoro Hawaii Corp., Industry Coalition (AF&PA *et al.*), JELD–WEN Inc., MSU, PSU, Purdue University, Renovar Energy Corp., RPU, Sierra Club, Southeastern Lumber Manufacturers Association, State of Washington Department of Ecology, BCSE, UARG, US Sugar, WM and WEPCO. Copies of these petitions are provided in the docket (see Docket ID No. EPA–HQ–OAR–2002–0058). Petitioners, pursuant to CAA section 307(d)(7)(B), requested that the EPA reconsider numerous provisions in the rule. On December 23, 2011, the EPA granted the petitions for reconsideration on certain issues, and proposed certain revisions to the final rule in response to the reconsideration petitions and to address the issues that the EPA previously identified as warranting reconsideration. That proposal solicited comment on several specific aspects of the rule, including:

- Revising the proposed subcategories.
- Solicitation of new data or corrections to existing data to revise emission standards calculations.
- Establishing an alternative TSM limit.
- Appropriateness of an alternative TSM limit for the liquid subcategories.
- Establishing work practice standards for dioxin/furan emissions.
- Revising the efficiency assumptions for the alternative output-based emission standards.
- Accommodating emissions averaging provisions in the alternative output-based emission standards.
- Establishing a mercury fuel specification through which gas-fired boilers that use a fuel other than natural gas or refinery gas may be considered Gas 1 units.
- Establishing a work practice standard for limited use units.
- Providing an affirmative defense for malfunction events.
- Revisions to the monitoring requirements for oxygen in the March 2011 final rule.
- Establishing a full-load stack test requirement for carbon monoxide coupled with continuous oxygen (oxygen trim) monitoring.
- Revising PM monitoring requirements from CEMS to CPMS and exempting biomass units from PM CPMS requirements.
- Revising mercury monitoring requirements to allow for an alternative mercury CEMS.
- Considering use of SO_2 CEMS to demonstrate compliance with HCl limits.
- Minimum data availability provisions.
- Averaging times for monitored parameters and pollutants.
- Revised methods for computing minimum detection levels.
- Providing an alternative CO emission limit based on CO CEMS data.
- Soliciting additional data to set MACT floor emission limits for non-continental liquid units.
- Selecting a 99 percent confidence interval for setting the CO emission limit.
- Tune-up frequencies, timing of initial tune-ups and adjusted tune-up requirements for shutdown units.
- Scope and duration of the energy assessment and deadline for completing the assessment.
- Revising work practices during startup and shutdown.
- Revisions to certain exemptions, including units serving as control devices, waste heat process heaters, units firing comparable fuels and residential units.
- Revisions to reduced testing frequency for emission limits that are established at minimum detection levels.
- Removing fuel analysis requirements for gas 1 fuels at co-fired units.
- Revisions to automating techniques for coal sampling.
- Revisions to emissions averaging across subcategories when units opt to switch to natural gas.
- Consideration of a new subcategory for units installed and used in place of flares.

In this action, the EPA is finalizing multiple changes to the March 2011 final rule after considering public comments on the items under reconsideration.

III. Summary of This Final Rule

As stated above, the December 23, 2011 proposed rule addressed specific issues and provisions the EPA identified for reconsideration. This summary of the final rule reflects the changes to 40 CFR part 63, subpart DDDDD (March 21, 2011 final rule) in regards to those provisions identified for reconsideration and on other discrete matters identified in response to comments or data received during the comment period. Information on other provisions and issues not proposed for reconsideration is contained in the notice and record for the 2011 final rule. [See 76 FR 15608]

This section summarizes the requirements of this action. Section IV below provides a summary of the significant changes to the March 21, 2011 final rule.

A. What is an affected source?

This final rule revises the list of exemptions in § 63.7491 to include residential boilers that may be located at an industrial, commercial or institutional major source. The exemption for boilers or process heaters used specifically for research and development has been revised to include boilers used for certain testing purposes.

B. What are the subcategories of boilers and process heaters?

In this final rule, we are finalizing separate subcategories for heavy liquid-fired, light liquid-fired and liquid-fired units in non-continental locations for PM and CO, pollutants that are dependent on combustor design. In addition, a new subcategory for coal-fired fluidized bed boilers with integrated fluidized bed heat exchangers has been included in the final rule for CO which is dependent on boiler design. Finally, we are finalizing the subcategory for PM at coal/fossil solid units across all coal combustor designs.

C. What emission limits and work practice standards are being finalized?

You must meet the emission limits presented in Table 3 of this preamble for each subcategory of units listed in the table. This final rule includes 19 subcategories, which are based on unit design. New and existing units in three of the subcategories are subject to work practices standards in lieu of emission limits for all pollutants. Numeric emission limits are finalized for new and existing sources in each of the other 16 subcategories.

The changes associated with the emission limits are due to new data, corrections to old data, and inventory changes. In summary, for existing subcategories, for the HCl emission limits, 10 are more stringent, 3 are less stringent and 1 remained the same from the March 21, 2011 final rule; for the mercury emission limits, 3 are more stringent and 11 are less stringent from the March 21, 2011 final rule; for the PM emission limits, 2 are more stringent, 7 are less stringent and 5 are unchanged from the March 21, 2011 final rule; and for the CO emission limits, 4 are more stringent and 10 are less stringent from the March 21, 2011 final rule. For new subcategories, for the HCl emission limits, 13 are less stringent and 1 is unchanged from the March 21, 2011 final rule; for the mercury emission limits, 11 are more

stringent, 2 are less stringent and 1 is unchanged from the March 21, 2011 final rule; for the PM emission limits, 9 are less stringent and 5 are unchanged from the March 21, 2011 final rule; and for the CO emission limits, 3 are more stringent and 11 are less stringent from the March 21, 2011 final rule.

TABLE 3—EMISSION LIMITS FOR BOILERS AND PROCESS HEATERS

[lb/MMBtu heat input basis unless noted; alternative output based limits are not shown in the summary table below]

Subcategory	Filterable PM (or total selected metals) (lb per MMBtu of heat input) [a]	HCl (lb per MMBtu of heat input) [a]	Mercury (lb per MMBtu of heat input) [a]	CO (ppm @3% oxygen) [a]	Alternate CO CEMS limit, (ppm @3% oxygen) [b]
Existing—Coal Stoker	0.040 (5.3E–05)	0.022	5.7E–06	160	340
Existing—Coal Fluidized Bed	0.040 (5.3E–05)	0.022	5.7E–06	130	230
Existing—Coal Fluidized Bed with FB heat exchanger	0.040 (5.3E–05)	0.022	5.7E–06	140	150
Existing—Coal-Burning Pulverized Coal	0.040 (5.3E–05)	0.022	5.7E–06	130	320
Existing—Biomass Wet Stoker/Sloped Grate/Other	0.037 (2.4E–04)	0.022	5.7E–06	1,500	720
Existing—Biomass Kiln-Dried Stoker/Sloped Grate/Other	0.32 (4.0E–03)	0.022	5.7E–06	460	ND
Existing—Biomass Fluidized Bed	0.11 (1.2E–03)	0.022	5.7E–06	470	310
Existing—Biomass Suspension Burner	0.051 (6.5E–03)	0.022	5.7E–06	2,400	[c] 2,000
Existing—Biomass Dutch Ovens/Pile Burners	0.28 (2.0E–03)	0.022	5.7E–06	770	[c] 520
Existing—Biomass Fuel Cells	0.020 (5.8E–03)	0.022	5.7E–06	1,100	ND
Existing—Biomass Hybrid Suspension Grate	0.44(4.5E–04)	0.022	5.7E–06	2,800	900
Existing—Heavy Liquid	0.062 (2.0E–04)	0.0011	2.0E–06	130	ND
Existing—Light Liquid	0.0079 (6.2E–05)	0.0011	2.0E–06	130	ND
Existing—non-Continental Liquid	0.27 (8.6E–04)	0.0011	2.0E–06	130	ND
Existing—Gas 2 (Other Process Gases)	0.0067 (2.1E–04)	0.0017	7.9E–06	130	ND
New—Coal Stoker	0.0011 (2.3E–05)	0.022	8.0E–07	130	340
New—Coal Fluidized Bed	0.0011 (2.3E–05)	0.022	8.0E–07	130	230
New—Coal Fluidized Bed with FB Heat Exchanger	0.0011 (2.3E–05)	0.022	8.0E–07	140	150
New—Coal-Burning Pulverized Coal	0.0011 (2.3E–05)	0.022	8.0E–07	130	320
New—Biomass Wet Stoker/Sloped Grate/Other	0.030 (2.6E–05)	0.022	8.0E–07	620	390
New—Biomass Kiln-Dried Stoker/Sloped Grate/Other	0.030 (4.0E–03)	0.022	8.0E–07	460	ND
New—Biomass Fluidized Bed	0.0098 (8.3E–05)	0.022	8.0E–07	230	310
New—Biomass Suspension Burner	0.030 (6.5E–03)	0.022	8.0E–07	2,400	[c] 2,000
New—Biomass Dutch Ovens/Pile Burners	0.0032 (3.9E–05)	0.022	8.0E–07	330	[c] 520
New—Biomass Fuel Cells	0.020 (2.9E–05)	0.022	8.0E–07	910	ND
New—Biomass Hybrid Suspension Grate	0.026 (4.4E–04)	0.022	8.0E–07	1,100	900
New—Heavy Liquid	0.013 (7.5E–05)	4.4E–04	4.8E–07	130	ND
New—Light Liquid	0.0011 (2.9E–05)	4.4E–04	4.8E–07	130	ND
New—Non-Continental Liquid	0.023 (8.6E–04)	4.4E–04	4.8E–07	130	ND
New—Gas 2 (Other Process Gases)	0.0067 (2.1E–04)	0.0017	7.9E–06	130	ND

NA-Not applicable; ND-No data available
[a] 3-run average, unless otherwise noted.
[b] 30-day rolling average, unless otherwise noted.
[c] 10-day rolling average.

We also are finalizing a work practice standard for dioxin/furan emissions from all subcategories.

D. What are the requirements during periods of startup and shutdown?

We are finalizing revised work practice standards for periods of startup and shutdown to better reflect the maximum achievable control technology during those periods. In addition, we are finalizing definitions of startup and shutdown. We are defining startup as the period between the state of first-firing of fuel in the unit after a shutdown to the period where the unit first supplies steam. We are defining shutdown as the period that begins when no more steam is supplied or at the point of no fuel being fired in the unit. For periods of startup and shutdown, we are finalizing the following work practice standard: You must operate all continuous monitoring systems during startup and shutdown. For startup, you must use one or a combination of the listed clean fuels. Once you start firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases, you must engage all of the applicable control devices except limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR and SCR. You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR and SCR systems as expeditiously as possible. During shutdown while firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases during shutdown, you must operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR and SCR. You must comply with all applicable emissions and operating limits at all times the unit is in operation except for periods that meet the definitions of startup and shutdown in this subpart, during which times you must comply with these work practices. You must keep records during periods of startup or shutdown. You must keep records concerning the date, duration, and fuel usage during startup and shutdown.

E. What are the testing and initial compliance requirements?

We are requiring that the owner or operator of a new or existing boiler or process heater conduct performance tests to demonstrate compliance with all applicable emission limits. This final rule adds the requirement to conduct initial and annual stack tests to determine compliance with the TSM emission limits using EPA Method 29 for those subcategories with alternate TSM limits.

F. What are the continuous compliance requirements?

This final rule removes the requirement for units combusting biomass with heat input capacities of 250 MMBtu/hr or greater to install, certify, maintain and operate a CEMS measuring PM emissions. This final rule requires units combusting solid fossil fuel or heavy liquid with heat input capacities of 250 MMBtu/hr or greater to install, certify, maintain, and operate PM CPMS. Moreover, owners or operators of units combusting solid fossil fuel or heavy liquid with heat input capacities of 250 MMBtu/hr or greater are allowed to install, certify, maintain and operate PM CEMS as an alternative to the use of PM CPMS, consistent with regulations for similarly-sized commercial and industrial solid waste incinerators units and EGUs subject to the MATS. Just as units using PM CPMS will not be required to conduct parameter monitoring for PM, units using PM CEMS will not be required to conduct parameter monitoring for PM.

This final rule also includes an alternative method of demonstrating continuous compliance with the HCl emission limit. This method allows using SO_2 emissions as an alternate operating limit. This method of demonstrating continuous compliance will be allowed only on a unit that utilizes a SO_2 CEMS and an acid-gas control technology including wet scrubber, dry scrubbers and duct sorbent injection. Boilers or process heaters subject to an HCl emission limit that demonstrate compliance with an SO_2 CEMS would be required to maintain the 30-day rolling average SO_2 emission rate at or below the highest hourly average SO_2 concentration measured during the most recent HCl performance test.

G. What are the compliance dates?

For existing sources, the EPA is establishing a compliance date of January 31, 2016. New sources must comply by January 31, 2013, or upon startup, whichever is later. New sources are defined as sources which commenced construction or reconstruction on or after June 4, 2010 pursuant to section 112(a)(4).

Commenters have argued that the 3-year compliance deadline the EPA is establishing for existing sources to meet the standards does not provide them with sufficient time to meet the standards in view of the large number of sources that will be competing for the needed resources and materials from engineering consultants, permitting authorities, equipment vendors, construction contractors, financial institutions, and other critical suppliers.

As an initial matter, we note that many sources subject to the emission standards in the final rule should be able to meet the standards within three years, even those that need to install pollution control technologies to do so. In addition, many sources subject to the rule are gas fired units or small boilers (less than 10 MMBtu/hr) and will not need to install controls in order to demonstrate compliance, as these sources are subject to work practice standards. For these sources, the 3-year compliance deadline is highly unlikely to be problematic either in general, or with respect to the claims commenters have made about the possibility that the demand for resources related to control technology will exceed the supply.

At the same time, the CAA allows title V permitting authorities to grant sources, on a case-by-case basis, extensions to the compliance time of up to one year if such time is needed for the installation of controls. *See* CAA section 112(i)(4)(i)(A). Permitting authorities are already familiar with, and in many cases have experience with, applying the 1-year extension authority under section 112(i)(4)(A) since the provision applies to all NESHAP. We believe that should the range of circumstances that commenters have cited as impeding sources' ability to install controls within three years materialize, then it is reasonable for permitting authorities to take those circumstances into consideration when evaluating a source's request for a 1-year extension, and where such applications prove to be well-founded, it is also reasonable for permitting authorities to make the 1-year extension available to applicants.

In making a determination as to whether an extension is appropriate, we believe it is also reasonable for permitting authorities to consider the large number of pollution control retrofit projects being undertaken for purposes of complying either with the standards in this rule or with those of other rules such as MATS for the power sector that may be competing for similar resources.

Further, commenters have pointed out that in some cases operators of existing sources that are subject to these standards and that generate energy may opt to meet the standards by terminating operations at these sources and building new sources to replace the energy generation at the shut-down sources. While the ultimate discretion to provide a 1-year extension lies with the permitting authority, the EPA believes that it is reasonable for permitting authorities to allow the fourth year extension for the installation of replacement sources of energy generation at the site of a facility applying for an extension for that purpose. Specifically, the EPA believes where an applicant demonstrates that it is building replacement sources of energy generation for purposes of meeting the requirements of these standards such a replacement project could be deemed to constitute the ''installation of controls'' under section 112(i)(3)(B).

In a case where pollution controls are being installed or onsite replacement energy generation is being constructed to allow for retirement of older, under-controlled energy generation units, a determination that an extra year is necessary for compliance should be relatively straightforward. In order to install controls, companies are likely to undertake a number of steps relatively soon after the effective date of the rule, including obtaining necessary building and environmental permits and hiring contractors to perform the construction of the emission controls or replacement energy generation units. This should provide sufficient information for a permitting authority to determine that emission controls are being installed or that replacement energy generation is being constructed. As a result, a permitting authority will be in a position to make a determination as to whether a source's compliance schedule will exceed 3 years and to quickly make a determination as to when an extension is appropriate.

In sum, the EPA believes that although most, if not all, units will be able to fully comply with the standards within 3 years, the fourth year that permitting authorities are allowed to grant for installation of controls is an important flexibility that will address situations where an extra year is necessary. Of course in situations where EPA is the permitting authority, we would also consider the above circumstances when acting on a permit application.

IV. Summary of Significant Changes Since Proposal

The EPA has made numerous changes in this final rule from the proposal after consideration of the public comments received. Most are changes to clarify applicability and implementation issues raised by the commenters. The public comments received on the proposed changes and the responses to them can be viewed in the memorandum ''Response to Comments for Industrial, Commercial, and Institutional Boilers

and Process Heaters National Emission Standards for Hazardous Air Pollutants'' located in the docket.

A. Applicability

Since proposal, the EPA has made certain changes to the applicability of this final rule. We have clarified that the exemption for boilers and process heaters used for research and development includes boilers used for testing the propulsion systems on military vessels. This is consistent with the intent of the exemption in that these test boilers do not provide steam for heating, to a process, or other non-propulsion related uses but are used exclusively to test the propulsion systems of nuclear-powered aircraft carriers that are undergoing repair, overhaul, or installation.

B. Subcategories

As described in the preamble to the proposed reconsideration rule, within the basic unit types of boilers and process heaters there are different designs and combustion systems that, while having a minor effect on fuel-dependent HAP emissions, have a much larger effect on pollutants whose emissions depend on the combustion conditions in a boiler or process heater. In the case of boilers and process heaters, the combustion-related pollutants are the organic HAP. In the proposed rule, we identified the following 17 subcategories for organic HAP: (1) Pulverized coal units; (2) stokers designed to burn coal; (3) fluidized bed units designed to burn coal; (4) stokers designed to burn wet biomass; (5) stokers designed to burn kiln-dried biomass; (6) fluidized bed units designed to burn biomass; (7) suspension burners designed to burn biomass; (8) dutch ovens/pile burners designed to burn biomass; (9) fuel cells designed to burn biomass; (10) hybrid suspension grate units designed to burn biomass; (11) units designed to burn heavy liquid fuel; (12) units designed to burn light liquid fuel; (13) non-continental liquid units; (14) units designed to burn natural gas/refinery gas; (15) units designed to burn other gases; (16) metal process furnaces; and (17) limited-use units.

In this final rule, we are also adding a separate subcategory for fluidized bed units with a fluidized bed heat exchanger designed to burn coal and adjusted the definition of the limited use subcategory.

Fluidized bed boilers are designed to combust fuel with relatively low heating value and high ash compared to other combustor designs. Two fuel properties of coal are heating values and ash content. As the heating value of the coal decreases, ash content increases. Fluidized bed boilers are designed to have large tube surface areas to transfer heat from the fuel through the process of conduction and convection, but in some cases the amount of tube surface area in the furnace for heat transfer is insufficient. In order to overcome insufficient heat exchange, certain fluidized bed boilers adopt a fluidized bed heat exchanger design to achieve heat transfer. The fluidized bed heat exchanger is located at the exit of the cyclone section of the unit. This design allows the boiler to combust coal with a lower heating value than a coal-fired fluidized bed boiler without a fluidized bed heat exchanger. Therefore, because this boiler design does have different combustion-related HAP emission characteristics, a new subcategory of coal fluidized bed with integrated heat exchanger was added to the final rule.

The EPA is also revising the definition of the limited use subcategory. Many affected units operate on standby mode or low loads for periods longer than the proposed definition for limited use units, which limited operation to 876 hours per year. By converting to a capacity-factor approach, we are allowing more flexibility on unit operations without increasing emissions or harm to human health and the environment. For example, units operating at 10 percent load for 8,760 hours per year would emit the same amount of emissions as units operating at full load for 876 hours per year. Further, it is technically infeasible to schedule stack testing for these limited use units since these units serve as back up energy sources and their operating schedules can be intermittent and unpredictable. The limited use subcategory was adjusted to be based on units with a federally enforceable operating limit of less than or equal to 10 percent of an average annual capacity factor.

C. Performance Test Requirements

Table 5 of this final rule has been revised to add performance test procedures for conducting performance stack tests for demonstrating compliance with the alternate TSM emission limits. In the reconsideration proposal, we proposed emissions limits for TSM (i.e., arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium) as an alternative to the proposed PM emission limits for many of the subcategories. In the preamble to the proposed rule, we added procedures in Table 6 of the rule for conducting fuel analysis for total selected metals but we inadvertently failed to add performance test requirements for stack sampling of TSM emissions in Table 5 of the rule.

D. Emission Limits

One significant change since proposal is related to the PM emission limits for the coal subcategories. Several petitioners disagreed with EPA's position to set different PM limits for subcategories of boilers and process heaters based on the fuel used, and instead offered information to support the position that PM should be considered a combustion-based pollutant. The differences in PM particle size, fouling characteristics and feasibility of certain control technologies on certain unit designs suggested that PM is more appropriately classified as a combustion-based pollutant, but only for the coal subcategories. After assessing the points raised by the petitioners, the EPA agreed that PM emissions are influenced by unit design, and fuel type, and proposed to create combustion-based pollutant subcategories for coal and solid fuels and create fuel-based subcategories for liquid and biomass fuel units. The EPA is finalizing a single PM limit for all coal/solid fossil fuel subcategories, and is also finalizing emissions limits based on PM as a combustion-based pollutant for the biomass and liquid fuel subcategories.

Another change from proposal is that the alternative TSM emission limits are now applicable to the three liquid fuel subcategories. Several commenters provided data and comments supporting these alternative emission standards for non-mercury metallic HAP. After assessing the revised data and the points made by the commenters, the EPA agrees that the limited data available for liquid fuel units are not unique to this subcategory. Based on the EPA agreeing with the commenters, the EPA re-calculated the TSM emission limits for the liquid fuel subcategories and included them in the final rule.

The CO emission limit for several subcategories, both new and existing, have been revised to reflect a CO level that is consistent with MACT for organic HAP reduction. Several commenters recommended that the EPA evaluate a minimum CO standard (i.e., 100 ppm corrected to 7 percent oxygen) to serve as a lower bound surrogate for organic HAP. Commenters also provided data and information to support such a standard, and noted that the EPA has taken a similar approach in other emission standards under section 112.

The EPA evaluated whether there is a minimum CO level for boilers and

process heaters below which there is no further benefit in organic HAP reduction/destruction. Specifically, we evaluated the relationship between CO and formaldehyde using the available data obtained during the rulemaking. Formaldehyde was selected as the basis of the organic HAP comparison because it is the most prevalent organic HAP in the emission database and a large number of paired tests existed for boilers and process heaters for CO and formaldehyde. The paired data show decreasing formaldehyde emissions with decreasing CO emissions down to CO levels around 300 ppm, supporting the selection of CO as a surrogate for organic HAP emissions. A slight increase in formaldehyde emissions is observed at CO levels below around 200 ppm, suggesting a breakdown in the CO-formaldehyde relationship at low CO levels. At levels lower than 150 ppm, the mean levels of formaldehyde appear to increase, as does the overall maximum value of and variability in formaldehyde emissions. However, we are aware of no reason why CO concentrations would continue to decrease and formaldehyde concentrations would increase as combustion conditions improve. It is possible that imprecise formaldehyde measurements at low concentrations (i.e., 1–2 ppm) may account for this slight increase in formaldehyde emissions observed at CO levels below 100 ppm corrected to 7 percent oxygen. Based on this, we do not believe that such measurements are sufficiently reliable to use as a basis for establishing an emissions limit.

Therefore, based on the above analysis, we are promulgating a minimum MACT floor level for CO of 130 ppm corrected to 3 percent oxygen (which is equivalent to 100 ppm corrected to 7 percent oxygen). We note this is the same approach used to establish the CO emission limit of 100 ppm corrected to 7 percent oxygen for the Burning of Hazardous Waste in Boilers and Industrial Furnaces rule. Additional discussion of the rationale for this approach can be found in the memorandum ''Revised MACT Floor Analysis (August 2012) for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants—Major Source.''

Subcategories where the initial MACT floor 99 percent UPL calculations for CO were less than 100 ppm corrected to 7 percent oxygen (or equivalently 130 ppm corrected to 3 percent oxygen) are as follows:

- New and Existing Subcategories: Coal-FB, Coal-PC, Heavy Liquid, Light Liquid, Non-Continental Liquid, Process Gas
- New Subcategories: Coal-Stoker

We believe a CO level of 130 ppm corrected to 3 percent oxygen is an appropriate minimum MACT floor level. Although some measurements show CO levels below 130 ppm corrected to 3 percent oxygen, it is not appropriate to establish a lower floor level because CO is a conservative surrogate for organic HAP. In other words, organic HAP emissions are extremely low when sources operate under the good combustion conditions required to achieve CO levels in the range of zero to 100 ppm. As such, lowering the CO floor below 100 ppm will not provide reductions in organic HAP emissions. There are myriad factors that affect combustion efficiency and, as a function of combustion efficiency, CO emissions. As combustion conditions improve and hydrocarbon levels decrease, the larger and easier to combust compounds are oxidized to form smaller compounds that are, in turn, oxidized to form CO and water. As combustion continues, CO is then oxidized to form carbon dioxide and water. Because CO is a difficult to destroy refractory compound (*i.e.,* oxidation of CO to carbon dioxide is the slowest and last step in the oxidation of hydrocarbons), it is a conservative surrogate for destruction of hydrocarbons, including organic HAP.

The conservative nature of CO as an indicator of good combustion practices is supported by our data. At CO levels less than 100 ppm corrected to 7 percent oxygen, our data indicate that there is no apparent relationship between CO and organic HAP (i.e., formaldehyde). For example, a source with a CO level of 20 ppm may have the same measured formaldehyde as a source achieving a CO emission level of 100 ppm corrected to 7 percent oxygen. Sources are required to establish operating requirements based on operating levels that were demonstrated during the test. Sources must comply with these operating requirements on a continuous basis. Compliance with these requirements adequately assures sources will be controlling organic HAP emissions to MACT levels.

As detailed in the docketed memorandum ''Beyond the Floor Technology Analysis for Major Source Boilers and Process Heaters (Revised August 2012),'' we reviewed the emission limits that are becoming less stringent since the March 2011 final rule in order to assess whether a beyond the floor option was technically achievable and cost effective. As a result of this review, the PM emission limits for several new biomass subcategories have been changed to reflect a beyond the floor limit of 0.03 lb/MMBtu, based on the limit for new biomass boilers in 40 CFR part 60 subparts Db and Dc. Due to the low mercury emission limits for new solid fuel boilers, these new biomass units are expected to install a fabric filter level of control in order to meet the new source mercury limits for the solid fuel subcategory. This mercury control has the co-benefit of reducing PM emissions down to levels of 0.03 lb/MMBtu so there is no incremental cost to achieve these additional reductions in PM for the biomass units that have a design heat input capacity between 10 and 30 MMBtu/hr. For units with a design heat input capacity of 30 MMBtu/hr or greater, these units are already subject to a PM limit of 0.03 lb/MMBtu and adjusting these new source limits to this level of control makes the limits consistent between both rules, without adding additional costs. We did not identify any beyond the floor options for existing source PM limits or new and existing limits for other pollutants as technically feasible or cost effective.

The other changes associated with the other emission limits are due to new data, corrections to old data, and inventory changes. In summary, compared to the December 23, 2011 proposed limits for existing units, the final HCl emission limits remained the same; for the final mercury emission limits, 3 are more stringent, 10 are less stringent and 1 is unchanged; for the final PM emission limits, 3 are more stringent, 5 are less stringent and 6 are unchanged; and for the final CO emission limits, 3 are more stringent and 11 are less stringent. For new units, compared to the proposed emission limits, 3 of the final HCl emission limits are more stringent and 11 remained the same; for the final mercury emission limits, 10 are more stringent and 4 are unchanged; for the final PM emission limits, 5 are more stringent, 2 are less stringent and 7 are unchanged; and for the final CO emission limits, 2 are more stringent, 11 are less stringent and 1 is unchanged.

E. Work Practice Requirement

In this final rule several changes have been made to the work practice requirement to conduct a tune-up. First, the requirement to inspect the burner has been revised to allow units that sell electricity to schedule the burner inspection, as well as the air-to-fuel system inspection, at the time of the first outage but not to exceed 36 months from the previous inspection. This

change is being made to this final rule because commenters stated that large boilers that serve electricity for sale may not require annual outages and would, therefore, need to be taken off-line for the sole purpose of an annual tune-up. This frequency is consistent with the requirements of the NESHAP for electric utility boilers (40 CFR part 63, subpart UUUUU).

Also, for units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or into process equipment. Commenters indicated that some process heaters are installed inside tanks and entry into the tank to access the heater may not occur within a 5 year period.

The requirement to optimize total emissions of CO has been revised to require that this optimization not only be consistent with the manufacturer's specifications but also with any NO_X emission requirement to which the unit is subject. Some commenters indicated that many boilers need different tune-up criteria due to their requirement to also comply with low NO_X emission limits. We are also aware that several states have boiler tune-up requirements to minimize NO_X emissions first and then optimize CO emissions.

We have added boilers or process heaters that have a continuous oxygen trim system to the types of boilers or process heaters that must conduct a tune-up every 5 years. These units do not need to be tuned as frequently because the trim system is designed to continuously measure and maintain an optimum air to fuel ratio which is the purpose of a tune-up.

F. Averaging Times Definitions

We revised the definitions of ''30-day rolling average'' and ''daily block average'' to exclude periods of startup and shutdown or downtime from the arithmetic mean. Commenters requested that the EPA specify how a 30-day rolling average is calculated and whether it includes the previous 720 hours of valid operating data and that the valid data exclude hours during startup and shutdown as well as unit down time. We agree with the commenters that the definitions need clarification and that these periods should not be included in calculating the 30-day rolling average. Therefore, we have revised the definitions accordingly.

We have also included in the final rule a definition of ''10-day rolling average'' that is consistent with the revised definition of ''30-day rolling average.''

G. Energy Assessment

In this final rule, we have revised the definition of energy assessment per the requirements of Table 3 of this final rule by providing duration for performing the energy assessment for large fuel use facilities. In numbered paragraph (3) in the definition of ''Energy assessment'' in § 63.7575, which is for facilities with units having a combined heat input capacity greater than 1 TBtu/yr, we added time duration/size ratio and included a cap to the maximum number of on-site technical hours that should be used in the energy assessment. This addition of a duration for large fuel use facilities is being made to be consistent with durations specified for small [paragraph (1) in the definition of ''Energy assessment''] and medium [paragraph (2) in the definition of ''Energy assessment''] fuel use facilities. The energy assessment for facilities with affected boilers and process heaters having a combined heat input capacity greater than 1.0 TBtu/yr will be up to 24 on-site technical labor hours for the first TBtu/yr plus 8 technical labor hours for every additional 1.0 TBtu/yr not to exceed 160 technical hours, but may be longer at the discretion of the owner or operator.

The revised definition of energy assessment also clarifies our intentions that the scope of assessment is based on energy use by discrete segments of a facility and not by a total aggregation of all individual energy using elements of a facility. The applicable discrete segments of a facility could vary significantly depending on the site and its complexity. We have added the following paragraph (4), to the energy assessment definition to help resolve current problems in identifying the scope of the various energy use systems in a large industrial complex and allow for more streamlined assessments:

''(4) The on-site energy use systems serving as the basis for the percent of affected boiler(s) and process heater(s) energy output in (1), (2) and (3) above may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed (e.g., product X manufacturing area; product Y drying area; Building Z).''

We have also revised paragraph 4 of Table 3 of the final rule to allow a source that is operating under an energy management program established through energy management systems compatible with ISO 50001, which includes the affected units, to satisfy the energy assessment requirement. We consider these energy management programs to be equivalent to the one-time energy assessment because facilities having these programs operate under a set of practices and procedures designed to manage energy use on an ongoing basis. These programs contain energy performance measurements and tracking plans with periodic reviews.

The definition of ''Energy use system'' has also been revised in this final rule to clarify that energy use systems are only those systems using energy clearly produced by affected boilers and process heaters.

H. Startup and Shutdown Definitions

A number of commenters indicated that the proposed load specifications (i.e., 25 percent load) within the definitions of ''startup'' and ''shutdown'' were inconsistent with either safe or normal (proper) operation of the various types of boilers and process heaters encountered within the source category. As the basis for defining periods of startup and shutdown, a number of commenters suggested alternative load specifications based on the specific considerations of their boilers; other commenters suggested the achievement of various steady-state conditions.

We have reviewed these comments and believe adjustments are appropriate in the definition of ''startup'' and ''shutdown.'' These adjustments are tailored for industrial boilers and are consistent with the definitions of ''startup'' and ''shutdown'' contained in the 40 CFR part 63, subpart A General Provisions. We believe these revised definitions address the comments and are rational based on the fact that industrial boilers function to provide steam or, in the case of cogeneration units, electricity; therefore, industrial boilers should be considered to be operating normally at all times steam of the proper pressure, temperature, and flow rate is being supplied to a common header system or energy user(s) for use as either process steam or for the cogeneration of electricity. The definitions of ''startup'' and ''shutdown'' have been revised in the final rule as follows:

''*Startup* means either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler or process heater after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler or process heater is supplied for heating and/or producing electricity, or for any other purpose.''

''*Shutdown* means the cessation of operation of a boiler or process heater for any purpose. Shutdown begins either when none of the steam and heat from the boiler or process heater is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler or process heater, whichever is earlier. Shutdown ends when there is both no steam or heat being supplied and no fuel being fired in the boiler or process heater.''

The EPA is requiring sources to vent emissions to the main stack(s) and operate all control devices necessary to meet the normal operating standards under this final rule (with the exception of limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR and SCR) when firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel or gas 2 (other) gases in the boiler or process heater during startup or shutdown. It is the responsibility of the operators of affected boilers and process heaters to start their limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR and SCR systems appropriately to comply with relevant standards applicable during normal operation. Startup ends and normal operating standards apply when heat or steam is supplied for any purpose.

The EPA carefully considered fuels and potential operational constraints of APCD when designing its work practices for periods of startup and shutdown. The EPA notes that there is no technical barrier to burning clean fuels (e.g., natural gas, distillate oil) for longer portions of startup or shutdown periods at a boiler and the HAP emission reduction benefits warrant additional utilization of such fuels until the temperature and stack emissions pressure is sufficient to engage the APCD. The EPA is aware that SNCR and SCR systems with ammonia injection need to be operated within a prescribed and relatively narrow temperature window to provide NO_X reductions. Further, the EPA is aware that dry scrubbers also need to be operated close to flue gas saturation temperature, and that fabric filters need to be operated at temperatures above the acid dew point. Because these devices have specific temperature requirements for proper operation, the EPA notes in its work practices that it is the responsibility of the operators of affected boilers and process heaters to start their SNCR, SCR, fabric filter and dry scrubber systems appropriately to comply with relevant standards applicable during normal operation.

I. Fuel Sampling Frequency

The sampling frequency for gaseous fuel-fired units that elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory has been revised in this final rule. If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification, no further sampling is required. If the initial mercury constituents are greater than half but equal to or less than 75 percent of the mercury specification, only semi-annual sampling need to be conducted. If the initial mercury constituents are greater than 75 percent of the mercury specification, monthly sampling is required.

J. Affirmative Defense

In the proposal, we used terms such as ''exceedance'' or ''excess emissions'' in § 63.7501, which created unnecessary confusion as to when the affirmative defense could be used. In the final amended rule, we have eliminated those terms and used the word ''violation'' to make clear that the affirmative defense to civil penalties is available only where an event that causes a violation of the emissions standard meets the definition of malfunction under § 63.2.

We have also eliminated the 2-day notification requirement that was included in 40 CFR 63.7501(b) at proposal because we expect to receive sufficient notification of malfunction events that result in violations in other required compliance reports, such as the malfunction report required under 40 CFR 63.7550(c). In addition, we have revised the 45-day affirmative defense reporting requirement that was included in 40 CFR 63.7501(b) at proposal to require sources to include the report in the first compliance, deviation or excess emission report due after the initial occurrence of the violation, unless the compliance, deviation or excess emission report is due less than 45 days after the violation. In that case, the affirmative defense report may be included in the second compliance, deviation or excess emission report due after the initial occurrence of the violation. Because the affirmative defense report is now included in a subsequent compliance, deviation or excess emission report, there is no longer a need for the proposed 30-day extension for submitting a stand-alone affirmative defense report. Consequently, we are not including this provision in the final amended rule. We have also re-evaluated the language concerning the use of off-shift and overtime labor to the extent practicable and believe that the language is not necessary. Thus, we have deleted that phrase from section 63.7501(a)(2).

V. Other Actions We Are Taking

Section 307(d)(7)(B) of the CAA states that ''[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b)).''

As to the first procedural criterion for reconsideration, a petitioner must show why the issue could not have been presented during the comment period, either because it was impracticable to raise the issue during that time or because the grounds for the issue arose after the period for public comment (but within 60 days of publication of the final action). The EPA is denying the petitions for reconsideration on a number of issues because this criterion has not been met. In many cases, the petitions reiterate comments made on the proposed June 2011 rule during the public comment period for that rule. On those issues, the EPA responded to those comments in the final rule and made appropriate revisions to the proposed rule after consideration of public comments received. It is well-established that an agency may refine its proposed approach without providing an additional opportunity for public comment. See *Community Nutrition Institute* v. *Block,* 749 F.2d at 58 and *International Fabricare Institute* v. *EPA,* 972 F.2d 384, 399 (D.C. Cir. 1992) (notice and comment is not intended to result in ''interminable back-and-forth[,]'' nor is agency required to provide additional opportunity to comment on its response to comments) and *Small Refiner Lead Phase-Down Task Force* v. *EPA,* 705 F.2d 506, 547 (D.C. Cir. 1983) (''notice requirement

should not force an agency endlessly to repropose a rule because of minor changes'')

In the EPA's view, an objection is of central relevance to the outcome of the rule only if it provides substantial support for the argument that the promulgated regulation should be revised. See *Union Oil* v. *EPA,* 821 F.2d 768, 683 (D.C. Cir. 1987) (court declined to remand rule because petitioners failed to show substantial likelihood that final rule would have been changed based on information in petition). See also the EPA's *Denial of the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202 of the Clean Air Act,* 75 FR at 49556, 49561 (August 13, 2010). See also, 75 FR at 49556, 49560–49563 (August 13, 2010) and 76 FR at 4780, 4786–4788 (January 26, 2011) for additional discussion of the standard for reconsideration under CAA section 307(d)(7)(B).

We are denying reconsideration on the following 57 issues contained in the petitions for reconsideration because they failed to meet the standard described above for reconsideration under CAA section 307(d)(7)(B). Specifically, on these issues, the petitioner has failed to show the following: that it was impracticable to raise their objections during the comment period or that the grounds for their objections arose after the close of the comment period; and/or that their concern is of central relevance to the outcome of the rule. Therefore, the EPA is denying the petitions for reconsideration on the issues for the reasons described below.

Issue: Delist gas units.

The petitioners (API, NPRA) requested that the EPA remove gas-fired units from the section 112(c) list of source categories for which the EPA is required to establish emissions standards under section 112(d). The EPA is denying the petition for reconsideration for the following reasons. First, the issue is outside the scope of this rulemaking, which establishes emissions standards for new and existing units within the major source boilers and process heaters source category. The EPA did not solicit comment in the proposed rule regarding the scope of the subcategory. Further, petitioners provide no information to support delisting gas units under section 112(c)(9), which requires the EPA to make certain findings before delisting any sources. In addition, the petition does not address the D.C. Circuit's decision in *NRDC* v. *EPA,* 489 F.3d 1364 (2007), regarding the EPA's ability to delist subcategories of a source category pursuant to section 112(c)(9). For these reasons, the petitions do not provide support for the argument that the regulation should be changed. For this reason, the petition does not demonstrate that the issue is of central relevance to the outcome of the final rule and the EPA is denying the request for reconsideration.

Issue: Exempt natural gas hot water heaters with tanks greater than 120 gallons.

The petitioner (AIF) requested that the EPA exempt natural gas hot water heaters with tanks greater than 120 gallons. While the EPA disagrees with the petitioner regarding whether such units should be subject to the emissions standards in this rule, the petitioner has not demonstrated that it lacked the opportunity to comment on whether such units should be required to meet emissions standards. The EPA proposed work practice standards for such units in its June 2010 proposal, and the petitioner had the opportunity to comment on whether such standards should be applied to such units at all. Therefore, the EPA is denying the request for reconsideration.

Issue: Exempt natural gas and distillate oil-fired circulating hot water systems with a design capacity of 10 MMBtu/hr or less.

The petitioner (CIBO) requested that the EPA exempt natural gas and distillate oil-fired circulation hot water systems that are not greater than 10 MMBtu/hr. While the EPA disagrees with the petitioner regarding whether such units should be subject to the emissions standards in this rule, the petitioner has not demonstrated that it lacked the opportunity to comment on whether such units should be required to meet emissions standards. The EPA proposed emissions standards for such units, and the petitioner had the opportunity to comment on whether such standards should be applied to such units at all. In addition, the petition does not provide any information to demonstrate that these units should be delisted pursuant to section 112(c)(9). Therefore, the EPA is denying the request for reconsideration.

Issue: Confirm in definitions that open flame heaters (e.g., asphalt tank heaters) are not process heaters.

The petitioners (API, NPRA) requested that the EPA clarify in the definition of ''process heater'' that open flame heaters do not meet the definition. While the EPA disagrees with the petitioners whether clarification is needed in regards to open flame heaters, the petitioners have not demonstrated that it lacked the opportunity to comment on the proposed definition. The definition that the EPA proposed clearly states that process heaters are enclosed devices in which the combustion gases do not come into contact with process materials, and as such, does not include open flame heaters. Therefore, the EPA is denying reconsideration.

Issue: For blast furnace fuel-fired boiler exemption, compute the 90 percent BFG by volume threshold to exclude periods of BFG curtailment.

The petitioners (AISI, ACCCI) requested that the EPA revise the exemption for BFG fuel-fired boilers to exclude periods of BFG curtailment. While the EPA disagrees with the petitioners regarding revising the exemption, the petitioners have not demonstrated that it lacked the opportunity to comment on the proposed exemption for BFG fuel-fired boilers. The EPA proposed the exemption for these boilers, and petitioners therefore had the opportunity to comment on whether the exemption should apply to periods of BFG curtailment. Therefore, the EPA is denying the request for reconsideration.

Issue: Exempt boilers whose flue gases are used in direct-fired process heaters subject to other NESHAP.

The petitioner (CMI) requested that the EPA exempt from the rule boilers whose flue gases are used in direct-fired process heaters that are subject to other NESHAP. The final rule does not apply to such units if they are subject to another NESHAP. The EPA does not see a need for further clarification. Since the final rule does in fact exempt these units, the EPA is denying the request for reconsideration.

Issue: Work practice standards do not meet EPA obligations under 112(c)(6).

The petitioner (Sierra Club) requested that the EPA establish numeric emissions limits for Gas 1 units rather than work practice standards. Specifically, the petitioner alleges that the work practice standards do not meet the EPA's obligations under section 112(c)(6) of the CAA, and that it was not the case that data were below the detection level for all HAP emitted from these units. The EPA is denying the request for reconsideration on this issue. While the EPA disagrees with the petitioner's arguments regarding the legal authority to establish work practice standards for Gas 1 units and the basis for such standards, the petitioner has not demonstrated that it lacked the opportunity to comment on this issue. The EPA proposed work practice standards for Gas 1 units and explained in the proposal its rationale for such standards, including the fact that a significant portion of the

emissions data were below the detection level. 75 *FR* at 32024–25. Therefore, the petitioner had the opportunity to comment on this issue, and did in fact submit comments regarding the EPA's legal authority to establish work practice standards for Gas 1 units. Therefore, the EPA is denying reconsideration on this issue.

Issue: Work practices for small units are not justified by 112(h) since small units were not given their own subcategory.

The petitioner (Sierra Club) requested that the EPA require small units, those having a heat input capacity of less than 10 MMBtu/hr, to meet numeric emissions limits rather than work practice standards. The EPA is denying the request for reconsideration on this issue because the petitioner has not demonstrated that it lacked the opportunity to comment on this issue. The EPA proposed work practice standards for these units and explained in the proposal its rationale for such standards. 75 *FR* at 32024–25. The EPA did in fact receive comments regarding the proposed standards, to which it responded in the final rule. 76 *FR* at 15640. Moreover, the EPA notes that nothing in section 112(h) limits the EPA's discretion to establish work practice standards to the establishment of such standards for an entire category or subcategory. Therefore, the EPA is denying the request for reconsideration.

Issue: PM is not an adequate surrogate for non-mercury metallic HAP.

The petitioner (Sierra Club) requested that the EPA remove the PM standard as a surrogate for non-mercury metallic HAP and instead adopt a numeric limit for non-mercury metallic HAP because PM is not an appropriate surrogate. The EPA is denying the request for reconsideration on this issue. While the EPA disagrees with the petitioner's argument regarding the suitability of PM as a surrogate for non-mercury metallic HAP, the petitioner has not demonstrated that it lacked the opportunity to comment on this issue. The EPA proposed PM standards as a surrogate for non-mercury metallic HAP and explained in the proposal the agency's basis for concluding that PM was an appropriate surrogate. 75 *FR* at 32018. Therefore, the EPA is denying the request for reconsideration.

Issue: Establish direct limits on organics or select a surrogate besides CO.

The petitioner (Sierra Club) requested that the EPA remove the CO standard as a surrogate for organic HAP and instead adopt a numeric limit for these HAP, because CO is not an appropriate surrogate. The EPA is denying the request for reconsideration on this issue. While the EPA disagrees with the petitioner's argument regarding the suitability of CO as a surrogate for organic HAP, the petitioner has not demonstrated that it lacked the opportunity to comment on this issue. The EPA proposed CO standards as a surrogate for organic HAP and explained in the proposal the agency's basis for concluding that CO was an appropriate surrogate. 75 *FR* at 32018. The EPA received comments on this issue, including comments stating that CO is not an appropriate surrogate for organic HAP. Therefore, the EPA is denying the request for reconsideration.

Issue: Adopt an alternative THC emission standard.

The petitioner (CIBO) requested that the EPA adopt a THC emissions standard as an alternative to the CO standard. The EPA is denying the request for reconsideration on this issue. While the EPA disagrees with the petitioner's argument regarding whether a THC alternative standard is appropriate as a surrogate for non-dioxin organic HAP, the petitioner has not demonstrated that it lacked the opportunity to comment on this issue. The EPA raised in the proposal the possibility of THC as a surrogate for non-dioxin organic HAP, and explained why the use of CO as a surrogate was preferable. 75 *FR* at 32018. In addition, the EPA did not receive any comments or data during the public comment period on the proposed rule that would have enabled the agency to establish a THC alternative standard, including THC emissions data, nor did the petitioner provide any such data. Therefore, the petition does not provide substantial support for its argument that the final rule should be changed. For these reasons, the EPA is denying the petition for reconsideration on this issue.

Issue: Regulation of Total dioxin/furans exceeds statutory authority as only 2 compounds are in 112(b)(1).

The petitioners (AISI, ACCCI, AF&PA) alleged that the EPA lacks statutory authority to regulate total dioxin/furans under CAA section 112, and that the EPA's response in the final rule explaining why it is issuing a total dioxin/furan standard was not a logical outgrowth of the proposed rule. The EPA is denying the request for reconsideration on this issue. First, the EPA disagrees that the final rule is not a logical outgrowth of the proposal. The EPA proposed emissions standards for total dioxin/furans and adopted a final emissions standard for the same pollutant. Therefore, the commenter had the opportunity to provide its views during the public comment period regarding the EPA's proposed emissions standard, including its views regarding the EPA's authority to regulate the pollutant at issue. The fact that the EPA responded to those comments does not mean that the petitioner lacked the opportunity to comment—in fact, the petitioner did provide such comments. 76 *FR* at 15640. For this reason, the EPA is denying the petition for reconsideration.

Issue: HCl is an inadequate surrogate for all acid gases.

The petitioner (Sierra Club) requested that the EPA remove the HCl standard as a surrogate for acid gases and instead adopt a numeric limit for these HAP, because HCl is not an appropriate surrogate. The EPA is denying the request for reconsideration on this issue. While the EPA disagrees with the petitioner's argument regarding the suitability of HCl as a surrogate for acid gases, the petitioner has not demonstrated that it lacked the opportunity to comment on this issue. The EPA proposed HCl standards as a surrogate for acid gases and explained in the proposal the agency's basis for concluding that HCl was an appropriate surrogate. 75 *FR* at 32018. While the EPA had emission data for HCl from hundreds of affected units upon which to establish standards, the EPA did not have sufficient data on the other acid gases to do so (hydrogen fluoride, hydrogen cyanide and chlorine). The petitioner did not refer to any such data and, therefore, the issue is not of central relevance to the outcome of the final rule. Therefore, the EPA is denying the request for reconsideration.

Issue: Establish work practice for other organic HAP instead of using CO as a surrogate.

The petitioners (AMP, JELD–WEN) requested that the EPA adopt a work practice standard for organic HAP rather than a numeric emissions limit based on CO as a surrogate for organic HAP. The EPA is denying the request for reconsideration on this issue. While the EPA disagrees that a work practice standard is appropriate for such HAP for the subcategories for which the EPA adopted a numeric CO limit in the final rule, the petitioners have not demonstrated that they lacked the opportunity to comment on this issue. The EPA proposed numeric CO limits rather than a work practice, and the petitioners had the opportunity to provide their views during the public comment period on the proposed rule regarding why it believed a work practice standard should instead be

finalized. Therefore, the EPA is denying the petition for reconsideration.

Issue: Allow health based compliance alternatives for HCl, other acid gases and manganese.

The petitioners (AMP, AF&PA, AHFA, AISI, ACCCI, RPU, CIBO) requested that the EPA adopt a HBES for HCl and other acid gases as well as for manganese, pursuant to section 112(d)(4). The petitioners also requested that the EPA grant reconsideration on this issue to better address the comments and data submitted during the public comment period for the proposed rule. The EPA is denying the request for reconsideration of this issue. The EPA did not propose a HBES for any pollutants, but did solicit public comment on such standards, explaining its concerns regarding health-based standards, including the lack of available data on which to base such standards. 75 *FR* at 32030. The EPA received comments addressing those concerns and responded to them in the final rule. 76 *FR* at 15642. Therefore, the petitioners have not demonstrated that it lacked the opportunity to comment on this issue. Further, the EPA received no data during the public comment period for the proposed rule on which it could base a HBES for HCl, other acid gases or manganese. Therefore, the petitions do not provide substantial support to demonstrate that the final rule should be changed. For these reasons, the EPA is denying the petition for reconsideration.

Issue: Provide additional compliance alternatives according to Executive Order 13563 (additional subcategories and HBES).

The petitioner (AHFA) requested that the EPA provide additional compliance alternatives in the final rule pursuant to Executive Order 13563 (Improving Regulation and Regulatory Review), including HBES. The EPA is denying the request for reconsideration on this issue because it is not of central relevance. First, nothing in Executive Order 13563 affects the EPA's discretion to establish HBES under the CAA. Additionally, the petition does not provide any information to address our concerns regarding HBES or data to establish such standards.

Issue: Remove energy assessment requirements.

The petitioners (AHFA, AISI, ACCCI, API, NPRA, AIF, CIBO, AF&PA, U.S. Sugar) requested that the EPA remove from the final rule the requirement that existing sources conduct an energy assessment. The EPA is denying the request for reconsideration on this issue. The EPA proposed an energy assessment requirement as a beyond-the-floor standard, and petitioners commented on that proposal. The EPA addressed those comments in the final rule, and petitioners have not demonstrated that they lacked the opportunity to comment on whether the EPA should require an energy assessment, including the EPA's legal authority to do so. 76 *FR* at 15631. Therefore, the EPA is denying the petition for reconsideration. The EPA continues to believe that an energy assessment is not only authorized by the CAA but required as a cost-effective beyond-the-floor standard in accordance with section 112(d)(2).

Issue: Require energy assessment to be conducted every 5 years.

The petitioner (Washington Dept. of Ecology) requested that the EPA require more frequent energy assessments. The EPA proposed a one-time assessment (75 *FR* at p. 32036) and the petitioner has not demonstrated it lacked the opportunity to comment on the frequency of the assessment requirement. Therefore, the EPA is denying the petition.

Issue: Modify cost analysis to include potential fuel savings from implementing assessment findings.

The petitioners (AIE, USCHPA) requested that the EPA modify its cost impacts analysis to include potential fuel savings from implementing energy assessment findings. The EPA is denying the petition. The impacts analysis, including specific mention of how cost savings for energy assessments were handled quantitatively, was explained in the proposal (see 75 FR 32026), and the petitioner therefore had the opportunity to comment on this issue. For this reason, the EPA is denying the petition for reconsideration on this issue.

Issue: Reconsider definition of ''cost effective.''

The petitioners (AIE, USCHPA) requested that the EPA reconsider the definition of ''cost-effective'' in the final rule. The EPA is denying the request for reconsideration on this issue. The EPA proposed to define cost-effective energy conservation measures as any measure with return of investment period of two years or less. 75 *FR* at 32036. The petitioners have not demonstrated it lacked the opportunity to comment on the proposed definition. Therefore, the EPA is denying the petition for reconsideration.

Issue: Establish work practice for other organic HAP instead of using CO surrogate.

The petitioners (AMP, JELD–WEN) requested that the EPA establish work practice standards for controlling organic HAP instead of using CO as a surrogate for organic HAP and establishing CO emission limits. The EPA is denying the request for reconsideration on this issue. Use of CO as a surrogate for organic HAP was subject to notice and comment. (75 FR 32018, 75 FR 32041). Responses to comment on this topic were provided in RTC document, Volume 2, EPA–HQ–OAR–2002–0058–3289, see section ''Choice of Regulated Pollutants: THC vs. CO vs. Other Organic HAP''.

Issue: Provide alternative format for units of measure for CO emission limits to allow sources to use their existing monitoring equipment.

The petitioners (UARG, CIBO) requested that the EPA provide an alternative format (ppm at X percent CO_2) for units of measure for CO emissions in addition to ppm at 3 percent oxygen. The EPA is denying the petition because the petitioners do not demonstrate that it was impracticable to comment on this issue. The format for units of measure for the limits was provided in the proposed rule, and petitioners could have commented on whether the proposed units were appropriate.

Issue: New source emission limits are unachievable and the EPA should collect additional fuel variability data from top performing units to adjust the limits.

The petitioner (AF&PA) requested that the EPA adjust the emissions limits for new sources by collecting additional data from the best performing units that they believed would result in increased variability. The petitioners have not demonstrated that they lacked the opportunity to comment. We proposed standards based on the data we had, including data collected during the ICR process in which petitioners participated, and that data were available for public review. Therefore, petitioners could have commented on this issue. Second, the CAA requires that we base the standards on the sources for which we have emissions information. Petitioners are always free to provide more information to us and the EPA specifically requested new data at each stage of the rulemaking to support the development of emission limits for each subcategory. (75 FR 32041, 76 FR 28663, 76 FR 80612). The EPA has incorporated revised data corrections or new data submittals in its analysis for the final rule. The EPA is denying the request for reconsideration.

Issue: Adjust the methodology for computing MACT floors to address statistical errors and variability concerns.

The petitioners (AISI, ACCCI, AF&PA) requested that the EPA adjust the

methodology for computing MACT floors to address statistical errors and variability concerns, including: (1) Dataset reflects the ''best of the best'' units; (2) misapplication of statistical formulae to address distribution, confidence limits, and variability; and (3) failure to address variability in emissions from one unit over time. The methods used to compute the MACT floors were subject to notice and comment. Where new data or data corrections have been submitted that might alter data distributions, identifying best performers or application of fuel variability factors, these changes have been made in the final rule, but the general methodology remains the same. See *Solite Corp.* v. *EPA,* 952 F.2d 473, 485 (D.C. Cir. 1991) (public had sufficient notice of final rule threshold calculations where methodology did not change significantly from proposed rule). The EPA explained the MACT floor methodology in the proposed rule, and addressed comments received on the proposed methodology in the final rule (75 FR 32019–26, 32027–29, 76 15621–30, 76 FR 80614). Therefore, the EPA is denying the request for reconsideration.

Issue: Modify the basis for ranking the top performing units.

The petitioner (WEPCO) requested that the EPA modify the basis for ranking the top performing units, especially for new units, according to the average performance of the unit. The EPA is denying the petition. The methods used to rank units to establish the MACT floors were subject to notice and comment. The EPA explained its methodology in the proposed rule and addressed comments received on the ranking of data for computing the MACT floor in the final rule (75 FR 32019–26, 32027–29, 76 FR 15627).

Issue: Do not use a pollutant-by-pollutant approach to establish MACT floors.

The petitioners (AISI, ACCCI, AF&PA) requested that the EPA not use a pollutant-by-pollutant approach to establish MACT floors. The petitioners stated that this method is not a reasonable interpretation of Section 112(d)(3) of the CAA and that MACT floors should reflect levels achieved in practice, not aspirational controls. The EPA is denying the petition for reconsideration on this issue because it does not demonstrate that it was impracticable to comment on the issue. The EPA proposed MACT floors based on the pollutant-by-pollutant methodology, and therefore petitioners could, and in fact did, provide comments opposing this approach. See 75 FR 32021, 32029. The EPA addressed comments received on this approach in the final rule (76 FR 15621–23). Therefore, the EPA is denying the petition.

Issue: Revise approach to establish MACT floors where there is non-detect data.

The petitioner (Sierra Club) requested that the EPA not use the approach it used in the final rule based on the representative detection level (RDL) to establish MACT floors because it does not reflect actual emissions of any source within the subcategory. Further, the petitioner questioned the basis of the selected detection level, and whether or not other variability adjustments (e.g., UPL analysis) sufficiently account for measurement imprecision. The EPA is denying the petition. The three times representative detection level approach was subject to notice and comment. The EPA explained its rationale for this approach in the proposed rule (75 FR 32021) and responded to comments received in the final rule (76 FR 15623, 76 FR 80611).

Issue: The approach used to set MACT floor limits for dioxin/furan emissions is flawed and the EPA should establish an isomer-specific approach.

The petitioner (WEPCO) requested that the EPA establish an isomer-specific approach for dioxin/furan emissions because the three times detection level approach for dioxin/furan emissions is flawed. The EPA is denying the petition. This approach was subject to notice and comment. Rationale and responses to comments on this approach were provided at (75 FR 32021, 32041, 76 FR 15623). Further, the methods for establishing a representative detection level for dioxin/furan have been revised to account for the sensitivity of individual isomers, see rationale provided at (76 FR 80606).

Issue: Incorporate a fuel variability factor for PM based on the ash content of the fuel used by best performing units.

The petitioners (WEPCO, CIBO) requested that the EPA incorporate a fuel variability factor for PM based on the ash content of the fuel used by best performing units. The MACT floor methodology was explained in the June 4, 2010 proposal which included fuel variability factors that did not reflect the ash content of the fuel. Therefore, the petitioner could have commented recommending that the EPA do so, and, in fact, comments were provided on this issue. The EPA is denying the petition for reconsideration on this issue because it does not demonstrate that it was impracticable to comment on the issue. Responses to comment on this topic were provided in RTC document, Volume 1, EPA–HQ–OAR–2002–0058–3289, see section ''MACT Floor Methodology: Fuel Analysis Variability''.

Issue: Allow energy assessors to determine the time needed to conduct assessment.

The petitioner (Washington Dept. of Ecology) requested that the EPA allow the energy assessor to determine the time needed to conduct the energy assessment. The EPA is denying the petition. The duration of energy assessments was subject to notice and comment and the duration remains up to the affected source. Specific concerns with maximum duration requirements included in the March 21, 2011 final rule were clarified in the December 23, 2011 proposed notice of reconsideration. (76 FR 80615)

Issue: The unit designed to burn gas 1 subcategory should allow for limited use of liquid fuels.

The petitioners (ACC, CEG, API, NPRA) requested that the EPA allow units in the Gas 1 subcategory for limited use of liquid fuels; for example, units with a federally enforceable permit on back up fuels or units burning 10 percent or less of its heat input from liquid fuels should qualify as gas 1 units. The EPA is denying the petition because it does not demonstrate that it was impracticable to comment on the issue. The EPA proposed definitions of the various subcategories, and petitioners had the opportunity to comment on those definitions, including the proposed definition of the Gas 1 subcategory which did allow for the limited use of liquid fuels. The EPA addressed comments received on this issue in the final rule (76 FR 15620).

Issue: The unit designed to burn gas 1 subcategory should automatically include other gaseous fuels such as petrochemical process gas and landfill gas.

The petitioners (ACC, AIF, WM) requested that the EPA redefine the unit designed to burn gas 1 subcategory to automatically include other gaseous fuels such as petrochemical process gas and LFG, especially when the LFG is routed to a treatment system prior to use or sale. The EPA proposed definitions of units designed to burn gas 1 and units designed to burn gas 2 (other), and therefore the petitioner had the opportunity to comment on these definitions and to recommend that other gases be included in the definition of the Gas 1 subcategory (75 FR 32017, 32065). The EPA addressed comments received on this issue in the final rule (76 FR 15638). Therefore, the EPA is denying the petition.

Issue: Reconsider the emission standards established for the unit designed to burn gas 2 subcategory.

Petitioners (AIF, CIBO, WM, CEG) requested that the EPA reconsider the emission standards for the unit designed to burn gas 2 subcategory in light of what they feel was a limited dataset and lack of data from a diverse set of fuel types. The EPA is denying the petition. The MACT floor methodology was open to notice and comment in the June 4, 2010 proposal. The EPA proposed emissions standards for this subcategory and the petitioners had an opportunity to comment on the proposed standards and the data on which the standards were based. The EPA further notes that the CAA requires that the MACT standards be based on the best performing sources for which the Administrator has emissions information.

Issue: Adjust the ''metal process furnaces'' subcategory definition to include any gas-fired process furnace.

The petitioners (AISI, ACCCI) requested that the EPA adjust the ''metal process furnaces'' subcategory definition to include any gas-fired process furnace. The EPA is denying the petition. The definition of the subcategory for metal process furnaces was subject to notice and comment. (75 FR 32064, 76 FR 15620).

Issue: The designed to burn rationale for subcategorization is arbitrary.

The petitioner (Sierra Club) alleged that the designed to burn rationale for subcategorization is arbitrary, especially considering the large number of co-fired units in the inventory. The EPA proposed subcategories based on boiler design, and the petitioner has not demonstrated that it was impracticable to comment on the issue. In fact, the petitioner did submit comments on the proposed rule opposing the EPA's proposed subcategorization approach. Therefore, the EPA is denying the petition.

Issue: The EPA should consider exempting units from NSR.

The petitioners (MSU, PSU, Purdue, Citizens Thermal Energy) requested that the EPA consider exempting units from NSR who switch fuels, install pollution controls, or construct energy efficiency projects to meet the requirements of this rule because complying with the rule requirements will trigger NSR. The EPA is denying the petition. The applicability of NSR is outside the scope of this rulemaking. Moreover, it was not impracticable to comment on this issue during the 2011 rulemaking, in fact, comments were submitted on this issue, to which the EPA responded. See RTC document, Volume 2, EPA–HQ–OAR–2002–0058–3289, DCN EPA–HQ–OAR–2002–0058–2729.1, excerpt 17.

Issue: Remove the 10 percent penalty for sources opting to use the emission averaging compliance alternative.

The petitioners (AMP, MSU, PSU, Purdue, RPU, U.S. Sugar, Citizens Thermal Energy) requested that the EPA remove the 10 percent penalty for sources opting to use the emission averaging compliance alternative. The EPA is denying the petition. The EPA proposed an emissions averaging approach that included the 10 percent adjustment factor. (75 FR 32035) Therefore, the petition does not demonstrate that it was impracticable to comment on this issue. Responses to comment on this topic were provided in RTC document, Volume 2, EPA–HQ–OAR–2002–0058–3289, see section ''Emissions Averaging.''

Issue: Allow emissions averaging across subcategories.

The petitioners (MSU, PSU, Purdue, RPU, Citizens Thermal Energy) requested that the EPA allow emissions averaging across subcategories. The EPA is denying the petition. The EPA proposed an emissions averaging approach that did not allow averaging across subcategories, and petitioners therefore had the opportunity to comment recommending that the EPA allow such averaging. Responses to comment on this topic were provided in RTC document, Volume 2, EPA–HQ–OAR–2002–0058–3289, DCN EPA–HQ–OAR–2002–0058–3213.1, excerpt 175.

Issue: Allow a source's actual heat input instead of the maximum design heat input to be used in the emissions averaging provisions.

The petitioner (CIBO) requested that the EPA allow a source's actual heat input instead of the maximum design heat input to be used in the emissions averaging provisions of the final rule. The EPA proposed an emissions averaging approach that was based on the maximum rated heat input capacity, and petitioners therefore had the opportunity to comment recommending that the EPA base the averaging on actual heat input. Therefore, the EPA is denying the petition.

Issue: Reduce stack testing frequency to once every five years to reduce burden on facilities.

The petitioners (ACC, CIBO, JELD–WEN) requested that the EPA reduce stack testing frequency to once every 5 years and rely on the extensive set of continuous parameter monitoring in order to reduce burden on facilities. The EPA is denying the petition. The EPA proposed to require stack testing every year. The petition does not demonstrate that it was impracticable to comment on this issue, and the petitioners could have submitted comments requesting less frequent stack testing.

Issue: Incorporate detailed fuel sampling procedures using incorporation by reference mechanisms instead of detailing sampling procedures in the regulatory language.

The petitioner (CIBO) requested that the EPA incorporate detailed fuel sampling procedures using incorporation by reference mechanisms and citing credible literature (e.g., American Society for Testing and Materials) instead of detailing sampling procedures in the regulatory language since sampling procedures are subject to change over time. The EPA is denying the petition because the petitioner has not demonstrated that it was impracticable to comment on this issue. The EPA proposed fuel sampling procedures in the regulatory text in the June 4, 2010 proposal, and the petitioner therefore had the opportunity to comment recommending its preferred approach.

Issue: Remove the advanced submittal requirement for site-specific fuel monitoring plans before each analysis.

The petitioner (UARG) requested that the EPA remove the advanced submittal requirement for site-specific fuel monitoring plans before each analysis, especially if monthly frequency is maintained. If the fuel monitoring plan requirement remains, the petitioner requests that the EPA remove the requirement to report things that might change, such as unanticipated fuel use (based on unanticipated fuel changes). The EPA is denying the petition and disagrees with the commenter. First, the EPA proposed a fuel monitoring plan, and petitioners had the opportunity to comment on the plan requirement. The final rule requires submittal of a fuel monitoring plan 60 days before demonstrating initial compliance. The rule does not require re-submittal of this plan before each monthly analysis, see 40 CFR section 63.7521(b)(1).

Issue: Allow EPA Method 5B to demonstrate compliance with PM emission limits.

The petitioner (UARG) requested that the EPA allow EPA Method 5B to demonstrate compliance with PM emission limits. The EPA is denying the petition because it does not demonstrate that it was impracticable to comment on this issue. The EPA proposed methods to demonstrate compliance in the June 4, 2010 proposal and did not propose to allow Method 5B for PM compliance demonstrations. Therefore, the petitioner had the opportunity to submit comments recommending that the EPA allow the use of this method. For this

reason, the EPA is denying the petition on this issue.

Issue: Remove or make references to Methods 2, 2F, 2G and 4 optional.

The petitioner (UARG) requested that the EPA remove or make references to EPA Methods 2, 2F, 2G and 4 optional. The EPA is denying the petition because it does not demonstrate that it was impracticable to comment on this issue. The EPA proposed methods to demonstrate compliance in the June 4, 2010 proposal and did not propose to make EPA Methods 2, 2F, 2G and 4 optional. Therefore, the petitioner had the opportunity to submit comments recommending that the EPA make the use of these methods optional. For this reason, the EPA is denying the petition on this issue.

Issue: Allow sources to petition for alternative PM monitoring requirements based on source-specific limitations.

The petitioner (CEG) requested that the EPA allow sources to petition for alternative PM monitoring requirements based on source-specific limitations (e.g., common stacks with more than one subcategory). The EPA is denying this petition because it is not of central relevance to this rulemaking. The General Provisions at 40 CFR 63.8 allow sources to petition the EPA for alternative monitoring plans. Therefore, no such provision is needed in this final rule.

Issue: Allow sources with overlapping CEMS regulations to comply with existing QA/QC plans or 40 CFR part 75 Appendices A and B.

The petitioners (CIBO, CMI) requested that the EPA allow sources with overlapping CEMS regulations to comply with existing QA/QC plans or 40 CFR part 75 Appendices A and B. The EPA is denying this petition because it is not of central relevance to this rulemaking.

Issue: No justification or discussion was provided on why the EPA selected 12 hours as the averaging time period and also why the EPA selected block averages instead of rolling averages.

The petitioner (Sierra Club) alleges that the EPA provided no justification or discussion explaining why the EPA selected 12 hours as the averaging time period and why the EPA selected block averages instead of rolling averages for parameter monitor. The petitioner requested that the EPA clarify that the averaging times for continuous parameter monitoring should be the same as the averaging times during the most recent performance test. Averaging times were open to notice and comment in the June 4, 2010 proposal. In the June 2010 proposal, we required that parameters be set based on 4-hour block averages during the compliance test, and that continuous compliance be demonstrated by monitoring 12-hour block average values for most parameters. We selected this averaging period to reflect operating conditions during the performance test to ensure the control system is continuously operating at the same or better level as during a performance test demonstrating compliance with the emission limits. Therefore, the EPA is denying the petition.

Issue: The EPA position regarding treatment of ''out-of-control'' and ''maintenance'' periods as deviations is not supported or explained.

The petitioner (UARG) alleges that the EPA position regarding treatment of ''out-of-control'' and ''maintenance'' periods as deviations is not supported or explained. The petitioner requested that the EPA revise the definition of ''deviation'' to be consistent with how deviation is treated with respect to CO CEMS and CPMS. The EPA is denying the petition. The definition of deviations was open to notice and comment in the June 4, 2010 proposal.

Issue: Require checks of pressure monitoring taps only if reading is abnormal.

The petitioner (CMI) requested that the EPA require checks of pressure monitoring taps only if reading is abnormal. The requirement to check pressure tap pluggage daily was open to notice and comment in the June 2010 proposal. In addition, the EPA is denying this petition because it is not of central relevance to this rulemaking.

Issue: The EPA has not sufficiently correlated emission limits to operating parameters and should not set enforceable limits on maximum and minimum control device operating parameters.

The petitioners (UARG, AMP, CIBO) alleges that the EPA has not sufficiently correlated emission limits to operating parameters and requested the EPA not to set enforceable limits on maximum and minimum control device operating parameters. One petitioner (CIBO) requested that the rule should allow sources to set their own ESP secondary voltage requirement based on load and coal quality since power consumption by an ESP is influenced by factors other than operating load, including ESP design, amount of PM collected, and resistivity of the PM. Other petitioners (UARG and AMP) also indicate that the limits set on control devices inhibit the flexibility to operate control devices with a margin of safety. The EPA is denying the petition. Operating limits were open to notice and comment in the June 4, 2010 proposal.

Issue: The EPA should delay incorporating PS 17 in this rule until the revisions for PS 17 are completed.

The petitioner (UARG) requested that the EPA delay incorporating PS 17 in this rule, which outlines how to select and install CPMS, until the revisions for PS 17 are completed.

The EPA is denying this petition. The final rule did not incorporate PS 17, or any other PS, in the provision regarding selection and installation of CPMS and ongoing quality assurance of data from CPMS. Comments related to revising PS 17 are outside the scope of this rulemaking. (RTC document, Chapter 11, EPA–HQ–OAR–2002–0058–3289, DCN EPA–HQ–OAR–2002–0058–2960.1, excerpt 150).

Issue: The EPA should not set an enforceable operating limit on opacity.

The petitioner (UARG) alleged that there is insufficient correlation between opacity and PM emissions and requested that the EPA not set an enforceable operating limit on opacity. The EPA is denying the petition. The EPA proposed opacity limits in the June 4, 2010 proposal and the petitioner therefore had the opportunity to comment on the proposed limits, including comments requesting that no limit be established.

Issue: Update outdated BLDS Guidance.

The petitioner (UARG) requested that the EPA update the outdated BLDS Guidance that is currently incorporated by reference. The EPA is denying this petition. The current guidance document is the most recent guidance available and comments related to revising the guidance document are outside the scope of this rulemaking. (RTC document, Chapter 11, EPA–HQ–OAR–2002–0058–3289, DCN EPA–HQ–OAR–2002–0058–2997.1, excerpt 10).

Issue: The EPA should reconsider emission limits for HCl on coal-fired boilers using a hot-side ESP for particulate control.

The petitioners (MSU, PSU, Purdue, Citizens Thermal Energy) requested that the EPA reconsider emission limits for HCl on coal-fired boilers using a hot-side ESP for particulate control. The petitioners are unaware of any HCl control devices that are compatible with a hot-side ESP. The EPA is denying the petition. The basis for subcategorization was subject to notice and comment. The EPA did not propose a separate subcategory for such units, and the petitioner could have commented recommending that the agency do so. (75 FR 32012, 76 FR 15617–18, 76 FR 80607) Further, the EPA disagrees with the petitioner that the subcategories

could be based on the level of controls installed on the unit.

Issue: The EPA should change electronic reporting requirements to avoid WebFIRE and ERT shortcomings.

The petitioner (UARG) requested that the EPA change the electronic reporting requirements to avoid WebFIRE and ERT shortcomings. The petitioner requested that to meet the EPA's obligations under the Paperwork Reduction Act the EPA specify each individual data item requested in the ERT. The petitioner also requests that the EPA explain how the ERT electronic signature mechanisms will meet the requirements of the Cross-Media Electronic Reporting Rule.

The EPA is denying the petition because it does not demonstrate that it was impracticable to comment on this issue. The EPA proposed to require the use of the ERT and WebFIRE, and the petitioner therefore had the opportunity to comment on any concerns with the proposed approach.

Issue: Eliminate gas curtailment notification requirements or adjust the frequency of these notifications to be consistent with the reporting requirements in the Title V program.

The petitioner (AIF) requested that the EPA eliminate the gas curtailment notification requirements or adjust the frequency of these notifications to be consistent with the semi-annual reporting requirements in the Title V program. The EPA is denying the petition. Reporting requirements were open to notice and comment in the June 4, 2010 proposal.

Issue: Allow facilities to become area or synthetic minor sources instead of installing controls.

The petitioner (GPSP) requested that the EPA allow facilities to become area or synthetic minor sources instead of installing controls. The EPA is denying the petition. Whether or not sources elect to become area or synthetic minor sources is not of central relevance to this rulemaking, as nothing in this rule affects whether or how a source can become a synthetic minor source (RTC document, EPA–HQ–OAR–2002–0058–3289, Volume 1, DCN EPA–HQ–OAR–2002–0058–3176.2, excerpt 4).

VI. Impacts of This Final Rule

A. What are the incremental air impacts?

Table 4 of this preamble illustrates, for each basic fuel subcategory, the total emissions reductions achieved by the final amended rule (i.e., the difference in emissions between a boiler or process heater controlled to the amended floor level of control and boilers or process heaters at the current baseline) for new and existing sources. Nationwide emissions of selected HAP (i.e., HCl, HF, mercury, metals, and VOC) will be reduced by 44,300 tpy. This is an incremental increase of 4,000 tpy in HAP reductions compared to the estimates in the March 2011 final rule. This increase is due mainly to changes in the inventory (336 units were added since the March 2011 inventory). Excluding the changes in the inventory, the amendments to the regulatory provisions themselves resulted in a decrease of 1,100 tpy of estimated reductions, part of this incremental reduction in HAP is contributed to edits to the baseline emission data received since the March 2011 final rule, as well as changes to the subcategories and emission limits as a result of this amended rule. The amendments to the final rule are expected to result in an additional 4,600 tpy of reductions in HCl emissions. The amendments are also expected to have a modest effect on mercury, estimated to range from a slight decrease of 0.12 tpy up to a slight increase of 0.96 tpy in emission reductions as a result of the changes to the regulatory requirements. Reductions in emissions of filterable PM will decrease by 18,500 tpy due to the final amended rule. Reductions in emissions of non-mercury metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium) will decrease by 260 tpy. In addition, the amendments are estimated to result in an additional 50,100 tpy of reductions in SO_2 emissions. A discussion of the methodology used to estimate emissions, emissions reductions, and incremental emission reductions is presented in ''Revised (August 2012) Methodology for Estimating Cost and Emission Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP—Major Source'' in the docket.

TABLE 4—SUMMARY OF TOTAL EMISSIONS REDUCTIONS FOR THE FINAL AMENDED RULE

[tons/yr]

Source	Subcategory	HCl	PM	Non mercury metals [a]	Mercury [b]	VOC
Existing Units	Limited Use	1	2	0.42	2.1E–04	0.48
	Solid units	36,737	21,367	147	0.4 to 1.5	1,619
	Liquid units	2,143	9,434	2,315	0.9 to 1	620
	Non-Continental Liquid units	35	3	1	0.01 to 0.02	23
	Gas 1 (NG/RG) units	20	117	0.3	0.01	88
	Gas 1 Metallurgical Furnaces	0.4	3	0.02	0.001	27
	Gas 2 (other) units	4	8	0.06	3.8E–03 to 4.6E–03.	40
New Units	Solid units	0	351	5	0.02	0
	Liquid units	0	0	0	0	0
	Gas 1 units	0	0	0	0	0
	Gas 1 Metallurgical Furnaces	0	0	0	0	0
	Gas 2 (other) units	0	0	0	0	0

[a] Includes antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium.

[b] Mercury reductions are presented as a range due to adjustments on reported fractions and limits of detection. See memorandum entitled ''Revised (March 2012) Methodology for Estimating Cost and Emissions Impacts for Industrial, Commercial, Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants—Major Source'' for a description of the two methods for estimating mercury reductions.

B. What are the incremental water and solid waste impacts?

The EPA estimated the additional water usage that would result from installing wet scrubbers to meet the amended emission limits for HCl would be 556 million gallons per year for existing sources compared to the current baseline. In addition to the increased water usage, an additional 160 million gallons per year of wastewater would be produced for existing sources. Only half of these incremental changes are due to changes in the regulatory provisions. The other half is due to changes in the number of identified existing units and projected new units. The annual costs of treating the additional wastewater are $1.2 million. These additional costs are accounted for in the incremental control cost estimates.

The EPA estimated the additional solid waste that would result due to the amendments to be 138,000 tpy, with nearly all due to changes in the regulatory provisions. Solid waste is generated from flyash and dust captured in PM and mercury controls as well as from spent carbon that is injected into exhaust streams or used to filter gas streams. The costs of handling the additional solid waste generated are $5.8 million. These costs are also accounted for in the incremental control costs estimates.

A discussion of the methodology used to estimate incremental impacts is presented in ''Revised (August 2012) Methodology for Estimating Cost and Emission Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP—Major Source'' in the docket.

C. What are the incremental energy impacts?

The EPA estimated that the March 2011 final rule would result in an increase of about 1.4 billion kWh/yr in national energy usage from the electricity required to operate control devices, such as wet scrubbers, electrostatic precipitators and fabric filters which are expected to be installed to meet the final rule. The amendments are expected to decrease energy usage by a net 143 million kWh/yr compared to the March 2011 rule. These reductions are driven by the regulatory provisions of these amendments. Additionally, the EPA expects these amendments will result in a decrease of 4.4 million MMBtu/yr in fuel savings, compared with the estimates in the March 2011 final rule.

D. What are the incremental cost impacts?

For these final amendments, we estimated the incremental difference between the national costs impacts for the final amended rule and the March 2011 final rule. First, we determined the control measures, work practices, and monitoring and testing requirements that would be required by boilers and process heaters located at major source facilities to comply with the final amended rule. To estimate the national cost impacts of the final amended rule for existing sources, we used the identical methodology used to estimate the cost impacts for the March 2011 final rule with one exception. In this revised analysis, it was assumed that several liquid fuel units that reported natural gas firing capability would switch to natural gas as a compliance option instead of installing add-on controls to demonstrate compliance with the emission limits. Thus, the only costs to these units would be the tune-up work practice costs. A discussion of the methodology used to estimate cost impacts is presented in ''Revised (August 2012) Methodology for Estimating Cost and Emission Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP—Major Source'' in the docket.

The resulting total national cost impact of the final amended rule is $4.7 billion in capital expenditures and $1.5 billion per year in total annual costs, considering fuel savings. The total capital expenditures are slightly lower than estimated for the March 2011 final rule, but the total annual costs are slightly higher than estimated for the March 2011 final rule. See 76 FR 15651. The total capital and annual costs include costs for control devices, work practices, testing and monitoring.

In order to determine the incremental cost impacts of the amended requirements and emission limits, we first estimated the cost impacts of the additional existing boilers and process heaters added to the Boiler MACT inventory database since promulgation of the March 2011 final rule and the revised number of new boilers and process heaters that could be potentially constructed. Since the March 2011 final rule, we became aware of 72 major source facilities that were not previously in the Boiler MACT inventory database. Adding the boilers and process heaters located at these newly identified major source facilities resulted in 73 additional coal-fired units, 32 additional biomass-fired units, 82 additional oil-fired units, and 149 additional gas-fired units. Our revised number of new boilers and process heaters included 82 additional biomass units, 1,728 additional gas 1 units and 13 fewer liquid units.

The resulting cost impact for these additional existing and new boilers and process heaters is $1.0 billion in capital expenditures and $0.31 billion per year in total annual costs, considering fuel savings.

Therefore, discounting the added costs for the additional boilers and process heaters included in the costs analysis, the estimated incremental cost impacts for these amended requirements on existing and new boilers and process heaters are $1.0 billion in capital expenditures and $0.13 billion per year in total annual costs less than the costs estimated in the March 2011 rule.

Table 5 of this preamble shows the total capital and annual cost impacts of the final amended rule for each subcategory. Costs include testing and monitoring costs, but not recordkeeping and reporting costs.

TABLE 5—SUMMARY OF TOTAL CAPITAL AND ANNUAL COSTS FOR NEW AND EXISTING SOURCES FOR THE FINAL AMENDED RULE

Source	Subcategory	Estimated/ projected number of affected units	Capital costs (10^6 $)	Testing and monitoring annualized costs (10^6 $/yr)	Annualized cost (10^6 $/yr) (considering fuel savings)
Existing Units	Coal units	621	2,554	46	904
	Biomass units	502	405	29	109
	Heavy Liquid units	319	761	5.4	221
	Light Liquid units	615	712	4.2	166
	Non-Continental Liquid units	21	62	0.8	17
	Gas 1 (NG/RG) units	11,929	77	0.9	(295)

TABLE 5—SUMMARY OF TOTAL CAPITAL AND ANNUAL COSTS FOR NEW AND EXISTING SOURCES FOR THE FINAL AMENDED RULE—Continued

Source	Subcategory	Estimated/ projected number of affected units	Capital costs (10^6 $)	Testing and monitoring annualized costs (10^6 $/yr)	Annualized cost (10^6 $/yr) (considering fuel savings)
	Gas 2 (other) units	129	138	2.3	58
Energy Assessment	ALL	1,700 (Facilities).	N/A	N/A	28
New Units	Coal units	0	0	0	0
	Biomass units	82	381	5.6	[a] 99
	Liquid units	0	0	0	0
	Gas 1 (NG/RG) units	1,762	11	0	[a] 5.1
	Gas 2 (other) units	0	0	0	0

[a] Total annualized costs for new units do not account for fuel savings since no fuel savings are estimated in the first year for new units.

Potential control device cost savings and increased recordkeeping and reporting costs associated with the emissions averaging provisions in the final rule are not accounted for in either the capital or annualized cost estimates.

A discussion of the methodology used to estimate cost impacts is presented in ''Revised (August 2012) Methodology for Estimating Cost and Emission Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP—Major Source'' in the docket.

E. What are the economic impacts?

The EPA analyzed the economic impacts of this final amended rule using the methodology that was discussed in the March 2011 final rule RIA and in the preamble to the March 2011 final rule. See FR 76 15651. The market impact results are very similar to the results presented in the March 2011 final rule and the RIA. The agency's economic model suggests the average national price increases for industrial sectors are less than 0.01 percent, while average annual domestic production may fall by less than 0.01 percent.

Because of higher domestic prices, imports slightly rise. The results for sales tests for small businesses were somewhat reduced than those calculated for the March 2011 final rule. For the sales tests using small companies identified in the Combustion Survey, the mean cost to receipts dropped from 4 percent in the RIA to 3 percent for this final amended rule and the median was 0.2 percent for the RIA and also 0.2 percent for this final amended rule. The number of parent companies with sales tests exceeding 3 percent dropped from 8 in the RIA to 5 for this final amended rule. There was no change in the results for small public entities. Median cost is still about $1.1 million and representative small major public entities would have cost-to-revenue ratios above 10 percent. The change in employment estimates between the RIA and the final amended rule is minimal. In the RIA for the March 2011 final rule, we estimated employment changes ranging between −3,100 to +6,500 employees, with a central estimate of +1,700. For this final amended rule we estimate employment changes ranging between −2,600 to +5,400 employees, with a central estimate of +1,400. These estimated annual employment changes compared to the baseline employment, and are for the time period for which the annualized cost applies (2015 to 2029).

F. What are the benefits of this final rule?

We calculated health benefits using the methodology described in the RIA prepared for the March 21, 2011 final rule. We incorporated the revised emission reductions estimated for this reconsideration final rule into the analysis. We were unable to estimate the benefits from reducing exposure to HAP and ozone, ecosystem impairment and visibility impairment, including reducing 180,000 tons of carbon monoxide, 39,000 tons of HCl, 500 tons of HF, 2,500 tons of other metals and 3,100 to 5,300 pounds of mercury. Please refer to the full description of the unquantified benefits as well as technical details of the analysis and its limitations and uncertainties in the final Boiler RIA (March 2011). These monetized benefits are approximately 23 percent higher than the March 2011 final rule benefits due to the increase in SO_2 emission reductions associated with the additional units affected by the rule and the revised HCl limit. We estimate the total monetized benefits of this final regulatory action to be $27 billion to $67 billion at a 3 percent discount rate and $25 to $61 billion at a 7 percent discount rate. All estimates are for the implementation year (2015) in 2008$. A summary of the monetized benefits estimates at discount rates of 3 percent and 7 percent is provided in Table 6 of this preamble. A summary of the avoided health incidences is provided in Table 7 of this preamble.

TABLE 6—SUMMARY OF THE MONETIZED BENEFITS ESTIMATES FOR THE FINAL BOILER MACT

[millions of 2008$] [a b]

Pollutant	Emissions reductions (tons)	Total monetized benefits (at 3% discount rate)	Total monetized benefits (at 7% discount rate)
$PM_{2.5}$-related benefits			
Direct $PM_{2.5}$	14,139	$1,200 to $2,900	$1,100 to $ $2,700
SO_2	572,000	$26,000 to $64,000	$24,000 to $61,000

TABLE 6—SUMMARY OF THE MONETIZED BENEFITS ESTIMATES FOR THE FINAL BOILER MACT—Continued

[millions of 2008$] [a b]

Pollutant	Emissions reductions (tons)	Total monetized benefits (at 3% discount rate)	Total monetized benefits (at 7% discount rate)
Total		$27,000 to $67,000	$25,000 to $61,000.

[a] All estimates are for the implementation year (2015), and are rounded to two significant figures so numbers may not sum across rows. All fine particles are assumed to have equivalent health effects because the scientific evidence is not yet sufficient to allow differentiation of effect estimates by particle type. Benefits from reducing hazardous air pollutants (HAP) are not included. These estimates do not include energy disbenefits valued at $24 million (using a 3 percent discount rate). These benefits reflect existing boilers and new boilers anticipated to come on-line by 2015.

[b] There are some slight differences in the emission reductions used in the RIA and those used in the air impacts section of this preamble due to some late changes in the data that were received after the RIA was completed. Refer to the memoranda ''Revised (August 2012) Methodology for Estimating Cost and Emission Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP—Major Source'' for a discussion of the differences.

TABLE 7—SUMMARY OF THE AVOIDED HEALTH INCIDENCES FOR THE FINAL BOILER MACT [a]

	Avoided health incidences
Premature Mortality	3,000–7,900
Morbidity	
Chronic Bronchitis	2,000
Acute Myocardial Infarction	5,000
Hospital Admissions, Respiratory	750
Hospital Admissions, Cardiovascular	1,600
Emergency Room Visits, Respiratory	3,000
Acute Bronchitis	4,600
Work Loss Days	390,000
Asthma Exacerbation	51,000
Minor Restricted Activity Days	2,300,000
Lower Respiratory Symptoms	55,000
Upper Respiratory Symptoms	41,000

[a] All estimates are for the implementation year (2015), and are rounded to two significant figures. All fine particles are assumed to have equivalent health effects because the scientific evidence is not yet sufficient to allow differentiation of effect estimates by particle type. Benefits from reducing HAP are not included. These benefits reflect existing boilers and new boilers anticipated to come online by 2015.

G. What are the incremental secondary air impacts?

For units adding controls to meet the amended emission limits, we anticipate very minor secondary air impacts. The combustion of fuel needed to generate additional electricity would yield slight increases in emissions, including NO_X, CO, PM and SO_2 and an increase in CO_2 emissions. Since NO_X and SO_2 are covered by capped emissions trading programs and methodological limitations prevent us from quantifying the change in CO and PM, we do not estimate an increase in secondary air impacts for this final rule from additional electricity demand. We do estimate greenhouse gas impacts, which result from increased electricity consumption, to be 859,200 tpy from existing units and 79,700 tpy from new units. This is 19,200 tpy less than the estimated greenhouse gas impacts associated with the March 2011 final rule.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under section 3(f)(1) of Executive Order 12866 (58 FR 51735, October 4, 1993), this action is an ''economically significant regulatory action'' because it is likely to have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities. Accordingly, the EPA submitted this action to the OMB for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to the OMB recommendations have been documented in the docket for this action.

The EPA did prepare a new RIA for this action. The EPA prepared an assessment of the changes in the costs and benefits of this final rule compared to the costs and benefits associated with the March 21, 2011, final rule. Overall, the costs and impacts are estimated to be similar to the costs and impacts associated with the previous final rule, although the distribution is somewhat different and the number of affected units in the inventory has increased by about 302 units. When comparing the costs using only those sources that were part of the final rule inventory, the costs have decreased. The EPA re-ran the multimarket model to assess changes in economic impacts, and this analysis confirmed that the overall economic impacts are similar to the previous final rule. The benefits are projected to increase by about 20 percent because of the increase in the estimated SO_2 reductions. A summary of the costs and benefits of the previous final rule is provided in the preamble to the previous final rule (*see* 76 FR 15658) and the detailed analysis for the previous final rule is provided in the RIA for the previous final rule. In addition, memoranda are provided in the docket to document the changes in costs, economic impacts, and benefits associated with this final rule, shown in Table 8.

TABLE 8—SUMMARY OF THE MONETIZED BENEFITS, SOCIAL COSTS AND NET BENEFITS FOR THE FINAL BOILER MACT RECONSIDERATION IN 2015

[Millions of 2008$] [1]

	3 percent discount rate	7 percent discount rate
Total Monetized Benefits [2]	$27,000 to $67,000	$24,000 to $61,000.
Total Social Costs [3]	$1,400 to $1,600	$1,400 to $1,600.
Net Benefits	$26,000 to $65,000	$23,200 to $59,000.

TABLE 8—SUMMARY OF THE MONETIZED BENEFITS, SOCIAL COSTS AND NET BENEFITS FOR THE FINAL BOILER MACT RECONSIDERATION IN 2015—Continued

[Millions of 2008$] [1]

	3 percent discount rate	7 percent discount rate
Non-monetized Benefits	Health effects from exposure to HAP (39,000 tons of HCl, 500 tons of HF, 3,100 to 5,300 pounds of mercury, and 2,500 tons of other metals). Health effects from exposure to other criteria pollutants (180,000 tons of CO and 572,000 tons of SO_2). Ecosystem effects. Visibility impairment.	

[1] All estimates are for the implementation year (2015), and are rounded to two significant figures.
[2] The total monetized co-benefits reflect the human health benefits associated with reducing exposure to $PM_{2.5}$ through reductions of $PM_{2.5}$ precursors such as directly emitted particles, SO_2, and NO_X and reducing exposure to ozone through reductions of VOC. It is important to note that the monetized benefits include many but not all health effects associated with $PM_{2.5}$ exposure. Monetized benefits are shown as a range from Pope et al. (2002) to Laden et al. (2006). These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to support the development of differential effects estimates by particle type. These estimates include the energy disbenefits valued at $24 million (using the 3 percent discount rate), which do not change the rounded totals. CO_2-related disbenefits were calculated using the ''social cost of carbon'', which is discussed further in the RIA.
[3] The methodology used to estimate social costs for one year in the multimarket model using surplus changes results in the same social costs for both discount rates.

B. Paperwork Reduction Act

The OMB has approved the information collection requirements contained in the March 21, 2011 final rule under the provisions of the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060–0551. The EPA has updated the supporting statement to reflect the final inventory and burden estimates associated with this action since some of the monitoring, recordkeeping and reporting requirements have changed since the March 21, 2011 final rule. These revised estimates have been sent to OMB for review and approval.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to agency policies set forth in 40 CFR part 2, subpart B.

This final rule will require maintenance inspections of the control devices but will not require any notifications or reports beyond those required by the General Provisions aside from a notification of intent to commence burning solid waste materials and notification of alternative fuel use for those units that are in the Gas 1 subcategory but burn liquid fuels for periodic testing, or during periods of gas curtailment or gas supply emergencies. The recordkeeping requirements require only the specific information needed to determine compliance.

The revised annual monitoring, reporting and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the standards) is estimated to be $95.3 million which is about the same as estimated for the March 2011 final rule. This includes 323,130 labor hours per year at a total labor cost of $30.6 million per year, and total non-labor capital costs of $64.7 million per year. This estimate includes initial and annual performance test, conducting and documenting an energy assessment, conducting fuel specifications for Gas 1 units, repeat testing under worst-case conditions for solid fuel units, conducting and documenting a tune-up, semiannual excess emission reports, maintenance inspections, developing a monitoring plan, notifications and recordkeeping. Monitoring, testing, tune-up and energy assessment costs and cost were also included in the cost estimates presented in the control costs impacts estimates in section VI.D of this preamble. The total burden for the federal government (averaged over the first 3 years after the effective date of the standard) is estimated to be 100,608 hours per year at a total labor cost of $5.3 million per year. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. In addition, the EPA is amending the table in 40 CFR part 9 of currently approved OMB control numbers for various regulations to list the regulatory citations for the information requirements contained in this final rule.

C. Regulatory Flexibility Act

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.[1] The RFA also allows an agency to ''consider a series of closely related rules as one rule for the purposes of sections'' 603 (initial regulatory flexibility analysis) and 604 (final regulatory flexibility analysis) in order to avoid ''duplicative action.'' 5 U.S.C. § 605(c). This final rule is closely related to the final major source rule, which the EPA signed on February 21, 2011. The EPA prepared a final regulatory flexibility analyses in connection with the major source rule. Therefore,

[1] Small entities include small businesses, small organizations, and small governmental jurisdictions. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business according to Small Business Administration (SBA) size standards by the North American Industry Classification System category of the owning entity. The range of small business size standards for the affected industries ranges from 500 to 1,000 employees, except for petroleum refining and electric utilities. In these latter two industries, the size standard is 1,500 employees and a mass throughput of 75,000 barrels/day or less, and 4 million kilowatt-hours of production or less, respectively; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

pursuant to § 605(c), the EPA is not required to complete a final regulatory flexibility analysis for this rule.

The EPA has been concerned with potential small entity impacts since it began developing the major source rule. The EPA conducted outreach to small entities and, pursuant to § 609 of RFA, convened a Small Business Advocacy Review Panel to obtain advice and recommendations from small entity representatives.

Pursuant to the RFA, the EPA used the Panel's report and prepared both an initial regulatory flexibility analysis and a final regulatory flexibility analysis in connection with the closely related major source rule. Convening an additional Panel and preparing an additional final regulatory flexibility analysis would be procedurally duplicative and is unnecessary given that the issues here are within the scope of those considered by the Panel. In addition, this final action would decrease capital and annualized costs on small entities by about 3 percent and 10 percent, respectively, relative to the closely related final rule.

D. Unfunded Mandates Reform Act

Title II of the UMRA of 1995, 2 U.S.C. 1531–1538, requires federal agencies, unless otherwise prohibited by law, to assess the effects of their regulatory actions on state, local and tribal governments and the private sector. Federal agencies must also develop a plan to provide notice to small governments that might be significantly or uniquely affected by any regulatory requirements. The plan must enable officials of affected small governments to have meaningful and timely input in the development of the EPA regulatory proposals with significant Federal intergovernmental mandates and must inform, educate, and advise small governments on compliance with the regulatory requirements.

Both this rule and the March 21, 2011 final rule contain a federal mandate that may result in expenditures of $100 million or more for state, local and tribal governments, in the aggregate, or the private sector in any one year. Accordingly, the EPA prepared under section 202 of the UMRA a written statement for the final rule. This final rule also contains a federal mandate that may result in expenditures of $100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year. The discussion below has been updated to reflect the changes.

1. Statutory Authority

As discussed in the March 21, 2011, final rule, the statutory authority for this final rulemaking is section 112 of the CAA. Title III of the CAA Amendments was enacted to reduce nationwide air toxic emissions. Section 112(b) of the CAA lists the 188 chemicals, compounds, or groups of chemicals deemed by Congress to be HAP. These toxic air pollutants are to be regulated by NESHAP.

Section 112(d) of the CAA directs us to develop NESHAP which require existing and new major sources to control emissions of HAP using MACT based standards. This NESHAP applies to all boilers and process heaters located at major sources of HAP emissions.

2. Social Costs and Benefits

The regulatory impact analysis prepared for the March 21, 2011 final rule, which we have revised for this final rule, including the agency's assessment of costs and benefits, is detailed in the ''Regulatory Impact Analysis for the Final Industrial Boilers and Process Heaters MACT (2011)'' and in the ''Regulatory Impact Results for the Reconsideration Final Rule for National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources'' in the docket. Based on estimated compliance costs associated with this final rule and the predicted change in prices and production in the affected industries, the estimated social costs of this rule are $1.4 to 1.6 billion (2008 dollars).

It is estimated that 3 years after implementation of this final rule, HAP would be reduced by 45,000 tpy, including reductions in HCl, hydrogen fluoride, metallic HAP including mercury, and several other organic HAP from boilers and process heaters. Studies have determined a relationship between exposure to these HAP and the onset of cancer, however, the agency is unable to provide a monetized estimate of the HAP benefits at this time. In addition, there are significant annual reductions in fine particulate matter ($PM_{2.5}$) and in SO_2 that would occur, including 25 thousand tons of $PM_{2.5}$ and 558 thousand tons of SO_2. These reductions occur within 3 years after the implementation of the final regulation and are expected to continue throughout the life of the affected sources. The major health effect associated with reducing $PM_{2.5}$ and $PM_{2.5}$ precursors (such as SO_2) are a reduction in premature mortality. Other health effects associated with $PM_{2.5}$ emission reductions include avoiding cases of chronic bronchitis, heart attacks, asthma attacks and work-lost days (i.e., days when employees are unable to work). While we are unable to monetize the benefits associated with the HAP emissions reductions, we are able to monetize the benefits associated with the $PM_{2.5}$ and SO_2 emissions reductions. For SO_2 and $PM_{2.5}$, we estimated the benefits associated with health effects of PM but were unable to quantify all categories of benefits (particularly those associated with ecosystem and visibility effects). Our estimates of the monetized benefits in 2015 associated with the implementation of the final regulatory action range from $27 billion (2008 dollars) to $67 billion (2008 dollars) when using a 3 percent discount rate (or from $25 billion (2008 dollars) to $61 billion (2008 dollars) when using a 7 percent discount rate). This estimate, at a 3 percent discount rate, is about $25 billion (2008 dollars) to $65 billion (2008 dollars) higher than the estimated social costs shown earlier in this section. The general approach used to value benefits is discussed in more detail earlier in this preamble. For more detailed information on the benefits estimated for the rulemaking, refer to the RIA and the memos updating the impacts and benefits in the docket.

3. Future and Disproportionate Costs

The UMRA requires that we estimate, where accurate estimation is reasonably feasible, future compliance costs imposed by this final rule and any disproportionate budgetary effects. Our estimates of the future compliance costs of the rule are discussed previously in this preamble.

We do not believe that there will be any disproportionate budgetary effects of this final rule on any particular areas of the country, state or local governments, types of communities (e.g., urban, rural) or particular industry segments. See the results of the ''Regulatory Impact Analysis for the Final Industrial Boilers and Process Heaters MACT (2011).''

4. Effects on the National Economy

The UMRA requires that we estimate the effect of this final rule on the national economy. To the extent feasible, we must estimate the effect on productivity, economic growth, full employment, creation of productive jobs and international competitiveness of the U.S. goods and services, if we determine that accurate estimates are reasonably feasible and that such effect is relevant and material.

The nationwide economic impact of this final rule is presented in the

''Regulatory Impact Analysis for the Final Industrial Boilers and Process Heaters MACT (2011)'' and a memoranda that are included in the docket, entitled ''Regulatory Impact Results for the Reconsideration Final Rule for National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources which update the RIA analyses. This analysis provides estimates of the effect of this rule on some of the categories mentioned above. The results of the economic impact analysis are summarized previously in this preamble. The results show that there will be a small impact on prices and output, and little impact on communities that may be affected by this final rule. In addition, there should be little impact on energy markets (in this case, coal, natural gas, petroleum products and electricity). Hence, the potential impacts on the categories mentioned above should be small.

5. Consultation With Government Officials

The UMRA requires that we describe the extent of the agency's prior consultation with affected state, local and tribal officials, summarize the officials' comments or concerns, and summarize our response to those comments or concerns. In addition, section 203 of the UMRA requires that we develop a plan for informing and advising small governments that may be significantly or uniquely impacted by a final rule. We consulted with state and local air pollution control officials during the development of the final rule. We have also held meetings on this final rule with many of the stakeholders from numerous individual companies, institutions, environmental groups, consultants and vendors, labor unions and other interested parties. We have added materials to the docket to document these meetings.

Consistent with section 205, the EPA has identified and considered a reasonable number of regulatory alternatives. Additional information on the costs and environmental impacts of these regulatory alternatives is presented in the docket.

The regulatory alternative upon which the emission limits in this final rule are based represents the MACT floors for all subcategories and, as a result, it is the least costly and least burdensome alternative.

This rule is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. While some small governments may have some sources affected by this final rule, the impacts are not expected to be significant. Therefore, this final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This final rule will not impose direct compliance costs on state or local governments, and will not preempt state law. Thus, Executive Order 13132 does not apply to this action.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). It will not have substantial direct effects on tribal governments, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Order has the potential to influence the regulation. This action is not subject to EO 13045 because it is based solely on technology performance.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a ''significant energy action'' as defined in Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. For the March 21, 2011, final rule, we estimated a 0.05 percent price increase for the energy sector and a −0.02 percent percentage change in production. We estimated a 0.09 percent increase in energy imports. For more information on the estimated energy effects, please refer to the ''Regulatory Impact Analysis for the Final Industrial Boilers and Process Heaters MACT (2011).'' The analysis is available in the public docket. While we did not recreate the RIA for this final action, the energy impacts for existing sources decreased slightly, and the energy impacts for new source increased due to the increased number of new sources that is now projected. Overall, the projected energy use increased slightly but would not change the analysis that was conducted for the previous final rule. Therefore, we conclude that this final rule when implemented is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the NTTAA, Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs the EPA to use VCS in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. VCS are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. NTTAA directs the EPA to provide Congress, through the OMB, explanations when the agency decides not to use available and applicable VCS.

This action does not involve any new technical standards from those contained in the March 21, 2011 final rule. Therefore, the EPA did not consider the use of any VCS. See 76 FR 15660–15662 for the NTTAA discussion in the March 21, 2011 final rule.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

For the March 2011 final rule, the EPA determined that the rule would not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the

level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. Compared to the previous final rule, while the amendments are somewhat less stringent for some subcategories of units and more stringent for some others, the overall increased health benefits demonstrate that the conclusions from the environmental justice analysis conducted for the previous final rule are still valid. Therefore, the EPA has determined this final rule will not have disproportionately high and adverse human or environmental effects on minority or low-income populations.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a ''major rule'' as defined by 5 U.S.C. 804(2). With the exception of the May 18, 2011 (76 FR 28661), delay of the effective date revising subpart DDDDD at 76 FR 15451 (March 21, 2011) being lifted January 31, 2013, this rule will be effective April 1, 2013.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and Recordkeeping requirements.

Dated: December 20, 2012

Lisa P. Jackson,

Administrator.

For the reasons cited in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Effective January 31, 2013, the May 18, 2011 (76 FR 28661), delay of the effective date revising subpart DDDDD at 76 FR 15451 (March 21, 2011) is lifted.

Subpart A—[Amended]

■ 3. Section 63.14 is amended by:
■ a. Revising paragraphs (b)(19), (b)(23), (b)(35), (b)(40), (b)(69), and (b)(70).
■ b. Removing and reserving paragraph (b)(53).
■ c. Adding paragraphs (b)(46), (b)(55), and (b)(76) through (83).
■ d. Adding paragraphs (p)(12) through (20).
■ e. Adding paragraph (r).

The revisions and additions read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) * * *

(19) ASTM D95–05 (Reapproved 2010), Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation, approved May 1, 2010, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

* * * * *

(23) ASTM D4006–11, Standard Test Method for Water in Crude Oil by Distillation, including Annex A1 and Appendix X1, approved June 1, 2011, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

* * * * *

(35) ASTM D6784–02 (Reapproved 2008) Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008, IBR approved for table 1 to subpart DDDDD of this part, table 2 to subpart DDDDD of this part, table 5 to subpart DDDDD, table 11 to subpart DDDDD of this part, table 12 to subpart DDDDD of this part, table 13 to subpart DDDDD of this part, and table 4 to subpart JJJJJJ of this part.

* * * * *

(40) ASTM D396–10 Standard Specification for Fuel Oils, approved October 1, 2010, IBR approved for § 63.7575 and § 63.11237.

* * * * *

(46) ASTM D4606–03 (2007), Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, approved October 1, 2007, IBR approved for table 6 to subpart DDDDD.

* * * * *

(55) ASTM D6357–11, Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, approved April 1, 2011, IBR approved for table 6 to subpart DDDDD.

* * * * *

(69) ASTM D4057–06 (Reapproved 2011), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, including Annex A1, approved June 1, 2011, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

(70) ASTM D4177–95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, including Annexes A1 through A6 and Appendices X1 and X2, approved May 1, 2010, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

* * * * *

(76) ASTM D6751–11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, approved July 15, 2011, IBR approved for § 63.7575 and § 63.11237.

(77) ASTM D975–11b, Standard Specification for Diesel Fuel Oils, approved December 1, 2011, IBR approved for § 63.7575.

(78) ASTM D5864–11 Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components, approved March 1, 2011, IBR approved for table 6 to subpart DDDDD.

(79) ASTM D240–09 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved July 1, 2009, IBR approved for table 6 to subpart DDDDD.

(80) ASTM D4208–02 (2007) Standard Test Method for Total Chlorine in Coal by the Oxygen Bomb Combustion/Ion Selective Electrode Method, approved May 1, 2007, IBR approved for table 6 to subpart DDDDD.

(81) ASTM D5192–09 Standard Practice for Collection of Coal Samples from Core, approved June 1, 2009, IBR approved for table 6 to subpart DDDDD.

(82) ASTM D7430–11ae1, Standard Practice for Mechanical Sampling of Coal, approved October 1, 2011, IBR approved for table 6 to subpart DDDDD.

(83) ASTM D6883–04, Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles, approved June 1, 2004, IBR approved for table 6 to subpart DDDDD.

* * * * *

(p) * * *

(12) Method 5050 (SW–846–5050), Bomb Preparation Method for Solid Waste, Revision 0, September 1994, in

EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition IBR approved for table 6 to subpart DDDDD.

(13) Method 9056 (SW–846–9056), Determination of Inorganic Anions by Ion Chromatography, Revision 1, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(14) Method 9076 (SW–846–9076), Test Method for Total Chlorine in New and Used Petroleum Products by Oxidative Combustion and Microcoulometry, Revision 0, September 1994, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(15) Method 1631 Revision E, Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Absorption Fluorescence Spectrometry, Revision E, EPA–821–R–02–019, August 2002, IBR approved for table 6 to subpart DDDDD.

(16) Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma—Mass Spectrometry, Revision 5.4, 1994, IBR approved for table 6 to subpart DDDDD.

(17) Method 6020A (SW–846–6020A), Inductively Coupled Plasma-Mass Spectrometry, Revision 1, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(18) Method 6010C (SW–846–6010C), Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 3, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(19) Method 7060A (SW–846–7060A), Arsenic (Atomic Absorption, Furnace Technique), Revision 1, September 1994, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(20) Method 7740 (SW–846–7740), Selenium (Atomic Absorption, Furnace Technique), Revision 0, September 1986, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

* * * * *

(r) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, (800) 332–8686, *http://www.tappi.org.*

(1) TAPPI T 266, Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy (Reaffirmation of T 266 om-02), Draft No. 2, July 2006, IBR approved for table 6 to subpart DDDDD.

(2) [Reserved]

Subpart DDDDD—[Amended]

■ 4. Section 63.7485 is revised to read as follows:

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491. For purposes of this subpart, a major source of HAP is as defined in § 63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in § 63.7575.

■ 5. Section 63.7490 is amended by adding paragraph (e) to read as follows:

§ 63.7490 What is the affected source of this subpart?

* * * * *

(e) An existing electric utility steam generating unit (EGU) that meets the applicability requirements of this subpart after the effective date of this final rule due to a change (e.g., fuel switch) is considered to be an existing source under this subpart.

■ 6. Section 63.7491 is amended by:
■ a. Revising the introductory text.
■ b. Revising paragraph (a).
■ c. Revising paragraph (c).
■ d. Revising paragraph (h)
■ e. Revising paragraph (i).
■ f. Revising paragraph (m).
■ g. Revising paragraph (n).

The revisions read as follows:

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (n) of this section are not subject to this subpart.

(a) An electric utility steam generating unit (EGU) covered by subpart UUUUU of this part.

* * * * *

(c) A boiler or process heater that is used specifically for research and development, including test steam boilers used to provide steam for testing the propulsion systems on military vessels. This does not include units that provide heat or steam to a process at a research and development facility.

* * * * *

(h) Any boiler or process heater that is part of the affected source subject to another subpart of this part, such as boilers and process heaters used as control devices to comply with subparts JJJ, OOO, PPP, and U of this part.

(i) Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60, part 61, or part 65 of this chapter provided that at least 50 percent of the average annual heat input during any 3 consecutive calendar years to the boiler or process heater is provided by regulated gas streams that are subject to another standard.

* * * * *

(m) A unit that burns hazardous waste covered by Subpart EEE of this part. A unit that is exempt from Subpart EEE as specified in § 63.1200(b) is not covered by Subpart EEE.

(n) Residential boilers as defined in this subpart.

* * * * *

■ 7. Section 63.7495 is amended by:
■ a. Revising paragraph (a).
■ b. Revising paragraph (b).
■ c. Adding paragraphs (e), (f), and (g).

The revisions and additions read as follows:

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by January 31, 2013, or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).

* * * * *

(e) If you own or operate an industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for the exemption in § 63.7491(l) for commercial and industrial solid waste incineration units covered by part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart and are no longer subject to part 60, subparts CCCC or DDDD beginning on the effective date of the switch as identified under the provisions of § 60.2145(a)(2) and (3) or § 60.2710(a)(2) and (3).

(f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2013, you must

be in compliance with the applicable existing source provisions of this subpart on the effective date such unit becomes subject to this subpart.

(g) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for a exemption in § 63.7491(i) that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart within 3 years after such unit becomes subject to this subpart.

■ 8.Section 63.7499 is amended by revising paragraphs (d) and (f) through (l) and adding paragraphs (p) through (u) to read as follows:

§ 63.7499 What are the subcategories of boilers and process heaters?

* * * * *

(d) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solid.

* * * * *

(f) Suspension burners designed to burn biomass/bio-based solid.

(g) Fuel cells designed to burn biomass/bio-based solid.

(h) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

(i) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solid.

(j) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(k) Units designed to burn liquid fuel that are non-continental units.

(l) Units designed to burn gas 1 fuels.

* * * * *

(p) Units designed to burn solid fuel.

(q) Units designed to burn liquid fuel.

(r) Units designed to burn coal/solid fossil fuel.

(s) Fluidized bed units with an integrated fluidized bed heat exchanger designed to burn coal/solid fossil fuel.

(t) Units designed to burn heavy liquid fuel.

(u) Units designed to burn light liquid fuel.

■ 9. Section 63.7500 is amended by:
■ a. Revising paragraph (a).
■ b. Revising paragraph (c).
■ c. Adding paragraph (d).
■ d. Adding paragraph (e).
■ e. Adding paragraph (f).

§ 63.7500 What emission limitations, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b), through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section.

(1) You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers and process heaters that generate steam. The output-based emission limits, in units of pounds per megawatt-hour, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers that generate electricity. If you operate a new boiler or process heater, you can choose to comply with alternative limits as discussed in paragraphs (a)(1)(i) through (a)(1)(iii) of this section, but on or after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

(i) If your boiler or process heater commenced construction or reconstruction after June 4, 2010 and before May 20, 2011, you may comply with the emission limits in Table 1 or 11 to this subpart until January 31, 2016.

(ii) If your boiler or process heater commenced construction or reconstruction after May 20, 2011 and before December 23, 2011, you may comply with the emission limits in Table 1 or 12 to this subpart until January 31, 2016.

(iii) If your boiler or process heater commenced construction or reconstruction after December 23, 2011 and before January 31, 2013, you may comply with the emission limits in Table 1 or 13 to this subpart until January 31, 2016.

(2) You must meet each operating limit in Table 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Table 4 to this subpart, or you wish to establish and monitor an alternative operating limit or an alternative monitoring parameter, you must apply to the EPA Administrator for approval of alternative monitoring under § 63.8(f).

(3) At all times, you must operate and maintain any affected source (as defined in § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

* * * * *

(c) Limited-use boilers and process heaters must complete a tune-up every 5 years as specified in § 63.7540. They are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart.

(d) Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in § 63.7540.

(e) Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.

(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 to this subpart.

■ 10. Section 63.7501 is revised to read as follows:

§ 63.7501 Affirmative Defense for Violation of Emission Standards During Malfunction.

In response to an action to enforce the standards set forth in § 63.7500 you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Assertion of affirmative defense.* To establish the affirmative defense in

any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred; and

(3) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in § 63.7500 of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

■ 11. Section 63.7505 is amended by:

■ a. Revising paragraph (a).

■ b. Revising paragraph (c).

■ c. Revising paragraphs (d) introductory text, (d)(1) introductory text, and (d)(1)(iii).

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply to you at all times the affected unit is operating except for the periods noted in § 63.7500(f).

* * * * *

(c) You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. You may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to § 63.7530(c) is less than the applicable emission limit. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) Otherwise, you must demonstrate compliance for HCl, mercury, or TSM using performance testing, if subject to an applicable emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(d) If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of CPMS), or with a CEMS, or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section for the use of any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in § 63.8(d) and the elements described in paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of § 63.7525. Using the process described in § 63.8(f)(4), you may request approval of alternative monitoring system quality assurance and quality control procedures in place of those specified in this paragraph and, if approved, include the alternatives in your site-specific monitoring plan.

* * * * *

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).

* * * * *

■ 12. Section 63.7510 is revised to read as follows:

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For each boiler or process heater that is required or that you elect to demonstrate compliance with any of the applicable emission limits in Tables 1 or 2 or 11 through 13 of this subpart through performance testing, your initial compliance requirements include all the following:

(1) Conduct performance tests according to § 63.7520 and Table 5 to this subpart.

(2) Conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, except as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For each boiler or process heater that burns a single type of fuel, you are not required to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to

§ 63.7521 and Table 6 to this subpart. For purposes of this subpart, units that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as units that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under § 63.7521 and Table 6 to this subpart.

(ii) When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart. If gaseous fuels other than natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels and those gaseous fuels are subject to another subpart of this part, part 60, part 61, or part 65, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart.

(iii) You are not required to conduct a chlorine fuel analysis for any gaseous fuels. You must conduct a fuel analysis for mercury on gaseous fuels unless the fuel is exempted in paragraphs (a)(2)(i) and (ii) of this section.

(3) Establish operating limits according to § 63.7530 and Table 7 to this subpart.

(4) Conduct CMS performance evaluations according to § 63.7525.

(b) For each boiler or process heater that you elect to demonstrate compliance with the applicable emission limits in Tables 1 or 2 or 11 through 13 to this subpart for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart. The fuels described in paragraph (a)(2)(i) and (ii) of this section are exempt from these fuel analysis and operating limit requirements. The fuels described in paragraph (a)(2)(ii) of this section are exempt from the chloride fuel analysis and operating limit requirements. Boilers and process heaters that use a CEMS for mercury or HCl are exempt from the performance testing and operating limit requirements specified in paragraph (a) of this section for the HAP for which CEMS are used.

(c) If your boiler or process heater is subject to a carbon monoxide (CO) limit, your initial compliance demonstration for CO is to conduct a performance test for CO according to Table 5 to this subpart or conduct a performance evaluation of your continuous CO monitor, if applicable, according to § 63.7525(a). Boilers and process heaters that use a CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 12, or 11 through 13 to this subpart, as specified in § 63.7525(a), are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in paragraph (a) of this section.

(d) If your boiler or process heater is subject to a PM limit, your initial compliance demonstration for PM is to conduct a performance test in accordance with § 63.7520 and Table 5 to this subpart.

(e) For existing affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section.

(f) For new or reconstructed affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration with the emission limits no later than July 30, 2013 or within 180 days after startup of the source, whichever is later. If you are demonstrating compliance with an emission limit in Tables 11 through 13 to this subpart that is less stringent (that is, higher) than the applicable emission limit in Table 1 to this subpart, you must demonstrate compliance with the applicable emission limit in Table 1 no later than July 29, 2016.

(g) For new or reconstructed affected sources (as defined in § 63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in § 63.7540(a) following the initial compliance date specified in § 63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in § 63.7540(a).

(h) For affected sources (as defined in § 63.7490) that ceased burning solid waste consistent with § 63.7495(e) and for which the initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

(i) For an existing EGU that becomes subject after January 31, 2013, you must demonstrate compliance within 180 days after becoming an affected source.

(j) For existing affected sources (as defined in § 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 to this subpart, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in § 63.7495.

■ 13. Section 63.7515 is revised to read as follows:

§ 63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of this section. Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of this section.

(b) If your performance tests for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Tables 1 and 2 or 11 through 13 to this subpart, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If you elect to

demonstrate compliance using emission averaging under § 63.7522, you must continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum mercury input level is waived unless the stack test is conducted for mercury. The requirement to test at maximum TSM input level is waived unless the stack test is conducted for TSM.

(c) If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Tables 1 and 2 or 11 through 13 to this subpart) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Tables 1 and 2 or 11 through 13 to this subpart).

(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

(e) If you demonstrate compliance with the mercury, HCl, or TSM based on fuel analysis, you must conduct a monthly fuel analysis according to § 63.7521 for each type of fuel burned that is subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart. You may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, you may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or you begin burning a new type of fuel, you must return to monthly monitoring for that fuel, until 12 months of fuel analyses are again less than 75 percent of the compliance level.

(f) You must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests must include all applicable information required in § 63.7550.

(g) For affected sources (as defined in § 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Tables 1, 2, or 11 through 13 to this subpart, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

(h) If your affected boiler or process heater is in the unit designed to burn light liquid subcategory and you combust ultra low sulfur liquid fuel, you do not need to conduct further performance tests if the pollutants measured during the initial compliance performance tests meet the emission limits in Tables 1 or 2 of this subpart providing you demonstrate ongoing compliance with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis. If you intend to use a fuel other than ultra low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, you must conduct new performance tests within 60 days of burning the new fuel type.

(i) If you operate a CO CEMS that meets the Performance Specifications outlined in § 63.7525(a)(3) of this subpart to demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you are not required to conduct CO performance tests and are not subject to the oxygen concentration operating limit requirement specified in § 63.7510(a).

■ 14. Section § 63.7520 is amended by revising paragraphs (a), (c), (d), and (e) and adding paragraph (f) to read as follows:

§ 63.7520 What stack tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific stack test plan according to the requirements in § 63.7(c). You shall conduct all performance tests under such conditions as the Administrator specifies to you based on the representative performance of each boiler or process heater for the period being tested. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

* * * * *

(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if you are opting to comply with the TSM alternative standard and you must demonstrate initial compliance and establish your operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Tables 1 and 2 or 11 through 13 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A–7 of this chapter to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates.

(f) Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

■ 15. Section 63.7521 is revised to read as follows:

§ 63.7521 What fuel analyses, fuel specification, and procedures must I use?

(a) For solid and liquid fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For solid fuels and liquid fuels, you must also conduct fuel analyses for TSM if you are opting to comply with the TSM alternative standard. For gas 2 (other) fuels, you must conduct fuel analyses for mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) For purposes of complying with this section, a fuel gas system that consists of multiple gaseous fuels collected and mixed with each other is considered a single fuel type and sampling and analysis is only required on the combined fuel gas system that will feed the boiler or process heater. Sampling and analysis of the individual gaseous streams prior to combining is not required. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Tables 1 and 2 or 11 through 13 to this subpart. Gaseous and liquid fuels are exempt from the sampling requirements in paragraphs (c) and (d) of this section and Table 6 to this subpart.

(b) You must develop a site-specific fuel monitoring plan according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section, if you are required to conduct fuel analyses as specified in § 63.7510.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section, or the methods listed in Table 6 to this subpart, or use an automated sampling mechanism that provides representative composite fuel samples for each fuel type that includes both coarse and fine material.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. You must collect all the material (fines and coarse) in the full cross-section. You must transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal one-hour intervals during the testing period for sampling during performance stack testing. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month.

(2) If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches. You must insert a clean shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling; use the same shovel to collect all samples.

(iii) You must transfer all samples to a clean plastic bag for further processing.

(d) You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.

(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) You must separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, you must repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) You must grind the sample in a mill.

(7) You must use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or TSM) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in

Table 6 to this subpart, for use in Equations 7, 8, and 9 of this subpart.

(f) To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in § 63.7575, you must conduct a fuel specification analyses for mercury according to the procedures in paragraphs (g) through (i) of this section and Table 6 to this subpart, as applicable, except as specified in paragraph (f)(1) through (4) of this section.

(1) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for natural gas or refinery gas.

(2) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gaseous fuels that are subject to another subpart of this part, part 60, part 61, or part 65.

(3) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section on gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels.

(4) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gas streams directly derived from natural gas at natural gas production sites or natural gas plants.

(g) You must develop and submit a site-specific fuel analysis plan for other gas 1 fuels to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (g)(1) and (2) of this section.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all gaseous fuel types other than those exempted from fuel specification analysis under (f)(1) through (3) of this section anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel specification analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different from the sampling methods contained in Table 6 to this subpart. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.

(iv) For each anticipated fuel type, the analytical methods from Table 6 to this subpart, with the expected minimum detection levels, to be used for the measurement of mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 to this subpart shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(h) You must obtain a single fuel sample for each fuel type according to the sampling procedures listed in Table 6 for fuel specification of gaseous fuels.

(i) You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each other gas 1 fuel type according to the procedures in Table 6 to this subpart.

■ 16. Section § 63.7522 is revised by:
■ a. Revising paragraphs (a) through (d).
■ b. Revising paragraphs (e)(1) and (2).
■ c. Revising paragraphs (f) introductory text and (f)(1) and (2).
■ d. Revising paragraphs (g) introductory text, (g)(2)(i), (g)(2)(iv), (g)(2)(vi)(B), (g)(3) introductory text, (g)(4) introductory text, and (g)(4)(ii).
■ e. Revising paragraph (h).
■ f. Revising paragraph (i).
■ g. Revising paragraph (j)(1).
■ h. Revising paragraph (k).

The revisions read as follows:

§ 63.7522 Can I use emissions averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of § 63.7500 for PM (or TSM), HCl, or mercury on a boiler or process heater-specific basis, if you have more than one existing boiler or process heater in any subcategories located at your facility, you may demonstrate compliance by emissions averaging, if your averaged emissions are not more than 90 percent of the applicable emission limit, according to the procedures in this section. You may not include new boilers or process heaters in an emissions average.

(b) For a group of two or more existing boilers or process heaters in the same subcategory that each vent to a separate stack, you may average PM (or TSM), HCl, or mercury emissions among existing units to demonstrate compliance with the limits in Table 2 to this subpart as specified in paragraph (b)(1) through (3) of this section, if you satisfy the requirements in paragraphs (c) through (g) of this section.

(1) You may average units using a CEMS or PM CPMS for demonstrating compliance.

(2) For mercury and HCl, averaging is allowed as follows:

(i) You may average among units in any of the solid fuel subcategories.

(ii) You may average among units in any of the liquid fuel subcategories.

(iii) You may average among units in a subcategory of units designed to burn gas 2 (other) fuels.

(iv) You may not average across the units designed to burn liquid, units designed to burn solid fuel, and units designed to burn gas 2 (other) subcategories.

(3) For PM (or TSM), averaging is only allowed between units within each of the following subcategories and you may not average across subcategories:

(i) Units designed to burn coal/solid fossil fuel.

(ii) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solids.

(iii) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solids.

(iv) Fluidized bed units designed to burn biomass/bio-based solid.

(v) Suspension burners designed to burn biomass/bio-based solid.

(vi) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(vii) Fuel Cells designed to burn biomass/bio-based solid.

(viii) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

(ix) Units designed to burn heavy liquid fuel.

(x) Units designed to burn light liquid fuel.

(xi) Units designed to burn liquid fuel that are non-continental units.

(xii) Units designed to burn gas 2 (other) gases.

(c) For each existing boiler or process heater in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on

January 31, 2013 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on January 31, 2013.

(d) The averaged emissions rate from the existing boilers and process heaters participating in the emissions averaging option must not exceed 90 percent of the limits in Table 2 to this subpart at all times the affected units are operating following the compliance date specified in § 63.7495.

(e) * * *

(1) You must use Equation 1a or 1b or 1c of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option for that pollutant do not exceed the emission limits in Table 2 to this subpart. Use Equation 1a if you are complying with the emission limits on a heat input basis, use Equation 1b if you are complying with the emission limits on a steam generation (output) basis, and use Equation 1c if you are complying with the emission limits on a electric generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Hm) \div \sum_{i=1}^{n} Hm \qquad \text{(Eq. 1a)}$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

Hm = Maximum rated heat input capacity of unit, i, in units of million Btu per hour.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So \qquad \text{(Eq. 1b)}$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, Eadj, determined according to § 63.7533 for that unit.

So = Maximum steam output capacity of unit, i, in units of million Btu per hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo \qquad \text{(Eq. 1c)}$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, Eadj, determined according to § 63.7533 for that unit.

Eo = Maximum electric generating output capacity of unit, i, in units of megawatt hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of determining the maximum rated heat input capacity of one or more boilers that generate steam, you may use Equation 2 of this section as an alternative to using Equation 1a of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option do not exceed the emission limits for that pollutant in Table 2 to this subpart that are in pounds per million Btu of heat input.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Sm \times Cfi) \div \sum_{i=1}^{n} (Sm \times Cfi) \qquad \text{(Eq. 2)}$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

Sm = Maximum steam generation capacity by unit, i, in units of pounds per hour.
Cfi = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for unit, i.
1.1 = Required discount factor.

(f) After the initial compliance demonstration described in paragraph (e) of this section, you must demonstrate compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through (3) of this section. The first monthly period begins on the compliance date specified in § 63.7495. If the affected source elects to collect monthly data for up the 11 months preceding the first monthly period, these additional data points can be used to compute the 12-month rolling average in paragraph (f)(3) of this section.

(1) For each calendar month, you must use Equation 3a or 3b or 3c of this section to calculate the average weighted emission rate for that month. Use Equation 3a and the actual heat input for the month for each existing unit participating in the emissions averaging option if you are complying with emission limits on a heat input basis. Use Equation 3b and the actual steam generation for the month if you are complying with the emission limits on a steam generation (output) basis. Use Equation 3c and the actual steam generation for the month if you are complying with the emission limits on a electrical generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb \qquad \text{(Eq. 3a)}$$

Where:
AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input, for that calendar month.
Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.
Hb = The heat input for that calendar month to unit, i, in units of million Btu.
n = Number of units participating in the emissions averaging option.
1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times So) \div \sum_{i=1}^{n} So \qquad \text{(Eq. 3b)}$$

Where:
AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output, for that calendar month.
Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj}, determined according to § 63.7533 for that unit.
So = The steam output for that calendar month from unit, i, in units of million Btu, as defined in § 63.7575.
n = Number of units participating in the emissions averaging option.
1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Eo) \div \sum_{i=1}^{n} Eo \qquad \text{(Eq. 3c)}$$

Where:
AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour, for that calendar month.
Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj}, determined according to § 63.7533 for that unit.
Eo = The electric generating output for that calendar month from unit, i, in units of megawatt hour, as defined in § 63.7575.
n = Number of units participating in the emissions averaging option.
1.1 = Required discount factor.

(2) If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation 3a of this section to calculate the average weighted emission rate using the actual steam generation from the boilers participating in the emissions averaging option.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^{n} (Er \times Sa \times Cfi) \div \sum_{i=1}^{n} (Sa \times Cfi) \qquad \text{(Eq. 4)}$$

Where:
AveWeightedEmissions = average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million

Btu of heat input for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Sa = Actual steam generation for that calendar month by boiler, i, in units of pounds.

Cfi = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for boiler, i.

1.1 = Required discount factor.

* * * * *

(g) You must develop, and submit upon request to the applicable Administrator for review and approval, an implementation plan for emission averaging according to the following procedures and requirements in paragraphs (g)(1) through (4) of this section.

* * * * *

(2) * * *

(i) The identification of all existing boilers and process heaters in the averaging group, including for each either the applicable HAP emission level or the control technology installed as of January 31, 2013 and the date on which you are requesting emission averaging to commence;

* * * * *

(iv) The test plan for the measurement of PM (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

* * * * *

(vi) * * *

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the Administrator, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

* * * * *

(3) The Administrator shall review and approve or disapprove the plan according to the following criteria:

* * * * *

(4) The applicable Administrator shall not approve an emission averaging implementation plan containing any of the following provisions:

* * * * *

(ii) The inclusion of any emission source other than an existing unit in the same subcategories.

* * * * *

(h) For a group of two or more existing affected units, each of which vents through a single common stack, you may average PM (or TSM), HCl, or mercury emissions to demonstrate compliance with the limits for that pollutant in Table 2 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) For a group of two or more existing units in the same subcategories, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.

(j) * * *

(1) Conduct performance tests according to procedures specified in § 63.7520 in the common stack if affected units from other subcategories vent to the common stack. The emission limits that the group must comply with are determined by the use of Equation 6 of this section.

$$En = \sum_{i=1}^{n} (ELi \times Hi) \div \sum_{i=1}^{n} Hi \qquad \text{(Eq. 6)}$$

Where:

En = HAP emission limit, pounds per million British thermal units (lb/MMBtu), parts per million (ppm), or nanograms per dry standard cubic meter (ng/dscm).

ELi = Appropriate emission limit from Table 2 to this subpart for unit i, in units of lb/MMBtu, ppm or ng/dscm.

Hi = Heat input from unit i, MMBtu.

* * * * *

(k) The common stack of a group of two or more existing boilers or process heaters in the same subcategories subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

■ 17. Section 63.7525 is amended by:

■ a. Revising paragraph (a)

■ b. Revising paragraph (b).

■ c. Revising paragraph (c) introductory text.

■ d. Revising paragraphs (d) introductory text and paragraphs (d)(1) through (d)(4).

■ e. Revising paragraph (e)(2).

■ f. Revising paragraph (e)(3).

■ g. Revising paragraph (f)(2).

■ h. Revising paragraph (j).

■ i. Revising paragraph (k).

■ j. Adding paragraph (l).

■ k. Adding paragraph (m).

The revisions and additions read as follows:

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If your boiler or process heater is subject to a CO emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must install, operate, and maintain an oxygen analyzer system, as defined in § 63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen according to the procedures in paragraphs (a)(1) through (7) of this section.

(1) Install the CO CEMS and oxygen analyzer by the compliance date specified in § 63.7495. The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler or process heater.

(2) To demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you must install, certify, operate, and maintain a CO CEMS and an oxygen analyzer according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, the site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section. Any boiler or process heater that has a CO CEMS that is compliant with Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, a site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section must use the CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart.

(i) You must conduct a performance evaluation of each CO CEMS according to the requirements in § 63.8(e) and

according to Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B.

(ii) During each relative accuracy test run of the CO CEMS, you must be collect emission data for CO concurrently (or within a 30- to 60-minute period) by both the CO CEMS and by Method 10, 10A, or 10B at 40 CFR part 60, appendix A–4. The relative accuracy testing must be at representative operating conditions.

(iii) You must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of appendix F to part 60. The measurement span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration.

(iv) Any CO CEMS that does not comply with § 63.7525(a) cannot be used to meet any requirement in this subpart to demonstrate compliance with a CO emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(v) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Complete a minimum of one cycle of CO and oxygen CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen data concurrently. Collect at least four CO and oxygen CEMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(4) Reduce the CO CEMS data as specified in § 63.8(g)(2).

(5) Calculate one-hour arithmetic averages, corrected to 3 percent oxygen from each hour of CO CEMS data in parts per million CO concentration. The one-hour arithmetic averages required shall be used to calculate the 30-day or 10-day rolling average emissions. Use Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7 for calculating the average CO concentration from the hourly values.

(6) For purposes of collecting CO data, operate the CO CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(7) Operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen according to Table 7 to this subpart.

(b) If your boiler or process heater is in the unit designed to burn coal/solid fossil fuel subcategory or the unit designed to burn heavy liquid subcategory and has an average annual heat input rate greater than 250 MMBtu per hour from solid fossil fuel and/or heavy liquid, and you demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CPMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b)(1) through (4) of this section. As an alternative to use of a PM CPMS to demonstrate compliance with the PM limit, you may choose to use a PM CEMS. If you choose to use a PM CEMS to demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CEMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraph (b)(5) through (8) of this section. For other boilers or process heaters, you may elect to use a PM CPMS or PM CEMS operated in accordance with this section in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure). Owners of boilers and process heaters who elect to comply with the alternative TSM limit are not required to install a PM CPMS.

(1) Install, certify, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(1)(i) through (iii) of this section.

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative exhaust gas sample. The reportable measurement output from the PM CPMS must be expressed as milliamps.

(ii) The PM CPMS must have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS must be capable of detecting and responding to PM concentrations of no greater than 0.5 milligram per actual cubic meter.

(2) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Collect PM CPMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d). Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output data collected during all boiler or process heater operating hours (milliamps).

(5) Install, certify, operate, and maintain your PM CEMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(5)(i) through (iv) of this section.

(i) You shall conduct a performance evaluation of the PM CEMS according to the applicable requirements of § 60.8(e), and Performance Specification 11 at 40 CFR part 60, appendix B of this chapter.

(ii) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, appendix B of this chapter, you shall collect PM and oxygen (or carbon dioxide) data concurrently (or within a 30-to 60-minute period) by both the CEMS and conducting performance tests using Method 5 at 40 CFR part 60, appendix A–3 or Method 17 at 40 CFR part 60, appendix A–6 of this chapter.

(iii) You shall perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 at 40 CFR part 60, appendix F of this chapter. You must perform Relative Response Audits annually and perform Response Correlation Audits every 3 years.

(iv) Within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and performance test data to the EPA by successfully submitting the data electronically into the EPA's Central Data Exchange by using the Electronic Reporting Tool (see *http://www.epa.gov/ttn/chief/ert/erttool.html/*).

(6) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the

initial performance evaluation no later than July 29, 2016.

(7) Collect PM CEMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d).

(8) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all boiler or process heater operating hours.

(c) If you have an applicable opacity operating limit in this rule, and are not otherwise required or elect to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (c)(1) through (7) of this section by the compliance date specified in § 63.7495.

* * * * *

(d) If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each CMS according to the procedures in paragraphs (d)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation every 15-minutes. You must have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.

(2) You must operate the monitoring system as specified in § 63.7535(b), and comply with the data calculation requirements specified in § 63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in § 63.7535(d).

(4) You must determine the 30-day rolling average of all recorded readings, except as provided in § 63.7535(c).

* * * * *

(e) * * *

(2) You must use a flow sensor with a measurement sensitivity of no greater than 2 percent of the design flow rate.

(3) You must minimize, consistent with good engineering practices, the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

* * * * *

(f) * * *

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion consistent with good engineering practices.

* * * * *

(j) If you are not required to use a PM CPMS and elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (j)(1) through (6) of this section.

(1) You must install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute PM loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.

(2) Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA–454/R–98–015 (incorporated by reference, see § 63.14).

(3) Use a bag leak detection system certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) Use a bag leak detection system equipped with a device to record continuously the output signal from the sensor.

(5) Use a bag leak detection system equipped with a system that will alert plant operating personnel when an increase in relative PM emissions over a preset level is detected. The alert must easily recognizable (e.g., heard or seen) by plant operating personnel.

(6) Where multiple bag leak detectors are required, the system's instrumentation and alert may be shared among detectors.

(k) For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.

(l) For each unit for which you decide to demonstrate compliance with the mercury or HCl emissions limits in Tables 1 or 2 or 11 through 13 of this subpart by use of a CEMS for mercury or HCl, you must install, certify, maintain, and operate a CEMS measuring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (l)(1) through (8) of this section. For HCl, this option for an affected unit takes effect on the date a final performance specification for a HCl CEMS is published in the **Federal Register** or the date of approval of a site-specific monitoring plan.

(1) Notify the Administrator one month before starting use of the CEMS, and notify the Administrator one month before stopping use of the CEMS.

(2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in § 63.7540(a)(14) for a mercury CEMS and § 63.7540(a)(15) for a HCl CEMS.

(3) For a new unit, you must complete the initial performance evaluation of the CEMS by the latest of the dates specified in paragraph (l)(3)(i) through (iii) of this section.

(i) No later than July 30, 2013.

(ii) No later 180 days after the date of initial startup.

(iii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(4) For an existing unit, you must complete the initial performance evaluation by the latter of the two dates specified in paragraph (l)(4)(i) and (ii) of this section.

(i) No later than July 29, 2016.

(ii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(5) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates using the continuous monitoring system outlet data. The 30-day rolling arithmetic average emission rate (lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR part 60, appendix A–7, but substituting the mercury or HCl concentration for the pollutant concentrations normally used in Method 19.

(6) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

(7) The one-hour arithmetic averages required shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day and 10-day rolling average emissions.

(8) You are allowed to substitute the use of the PM, mercury or HCl CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with the PM, mercury or HCl emissions limit, and if you are using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, you are allowed to substitute the use of a sulfur dioxide

(SO_2) CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with HCl emissions limit.

(m) If your unit is subject to a HCl emission limit in Tables 1, 2, or 11 through 13 of this subpart and you have an acid gas wet scrubber or dry sorbent injection control technology and you use an SO_2 CEMS, you must install the monitor at the outlet of the boiler or process heater, downstream of all emission control devices, and you must install, certify, operate, and maintain the CEMS according to part 75 of this chapter.

(1) The SO_2 CEMS must be installed by the compliance date specified in § 63.7495.

(2) For on-going quality assurance (QA), the SO_2 CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO_2 CEMS has a span value of 30 ppm or less.

(3) For a new unit, the initial performance evaluation shall be completed no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, the initial performance evaluation shall be completed no later than July 29, 2016.

(4) For purposes of collecting SO_2 data, you must operate the SO_2 CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when SO_2 data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis.

(6) Use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO_2 data and do not use part 75 substitute data values.

■ 18. Section 63.7530 is amended by:
■ a. Revising paragraph (a).
■ b. Revising paragraph (b) introductory text.
■ c. Redesignating paragraph (b)(3) as paragraph (b)(4) and adding new paragraph (b)(3).
■ d. Revising newly designated paragraph (b)(4).
■ e. Revising paragraph (c), (c)(2) through (4).
■ f. Adding paragraph (c)(5).
■ g. Revising paragraphs (d), (e), (g), and (h).
■ h. Adding paragraph (i).

The revisions and additions read as follows:

§ 63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses and establishing operating limits, as applicable, according to § 63.7520, paragraphs (b) and (c) of this section, and Tables 5 and 7 to this subpart. The requirement to conduct a fuel analysis is not applicable for units that burn a single type of fuel, as specified by § 63.7510(a)(2)(i). If applicable, you must also install, operate, and maintain all applicable CMS (including CEMS, COMS, and CPMS) according to § 63.7525.

(b) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Table 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (b)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of this section, as applicable, and as specified in § 63.7510(a)(2). (Note that § 63.7510(a)(2) exempts certain fuels from the fuel analysis requirements.) However, if you switch fuel(s) and cannot show that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

* * * * *

(3) If you opt to comply with the alternative TSM limit, you must establish the maximum TSM fuel input (TSMinput) for solid or liquid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the fuel analysis for TSM, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of TSM, and the average TSM concentration of each fuel type burned (TSMi).

(iii) You must establish a maximum TSM input level using Equation 9 of this section.

$$TSMinput = \sum_{i=1}^{n} (TSMi \times Qi) \qquad \text{(Eq. 9)}$$

Where:

TSMinput = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

TSMi = Arithmetic average concentration of TSM in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of ''1'' for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(4) You must establish parameter operating limits according to paragraphs (b)(4)(i) through (ix) of this section. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

(i) For a wet acid gas scrubber, you must establish the minimum scrubber effluent pH and liquid flow rate as defined in § 63.7575, as your operating limits during the performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for HCl and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flow rate, and

pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate operating limit at the higher of the minimum values established during the performance tests.

(ii) For any particulate control device (e.g., ESP, particulate wet scrubber, fabric filter) for which you use a PM CPMS, you must establish your PM CPMS operating limit and determine compliance with it according to paragraphs (b)(4)(ii)(A) through (F) of this section.

(A) Determine your operating limit as the average PM CPMS output value recorded during the most recent performance test run demonstrating compliance with the filterable PM emission limit or at the PM CPMS output value corresponding to 75 percent of the emission limit if your PM performance test demonstrates compliance below 75 percent of the emission limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(*1*) Your PM CPMS must provide a 4–20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

(*2*) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to at least two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.

(*3*) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(B) If the average of your three PM performance test runs are below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in paragraphs (b)(4)(ii)(B)(*1*) through (*4*) of this section.

(*1*) Determine your instrument zero output with one of the following procedures:

(*i*) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(*ii*) Zero point data for *extractive* instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(*iii*) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (*e.g.,* when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(*iv*) If none of the steps in paragraphs (b)(4)(ii)(B)(*1*)(*i*) through (*iii*) of this section are possible, you must use a zero output value provided by the manufacturer.

(*2*) Determine your PM CPMS instrument average in milliamps, and the average of your corresponding three PM compliance test runs, using equation 10.

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} X_1 \, , \bar{y} = \frac{1}{n}\sum_{i=1}^{n} Y_1 \qquad \text{(Eq. 10)}$$

Where:

X_1 = the PM CPMS data points for the three runs constituting the performance test,

Y_1 = the PM concentration value for the three runs constituting the performance test, and

n = the number of data points.

(*3*) With your instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run average PM concentration from your three compliance tests, determine a relationship of lb/MMBtu per milliamp with equation 11.

$$R = \frac{Y_1}{(X_1 - z)} \qquad \text{(Eq. 11)}$$

Where:

R = the relative lb/MMBtu per milliamp for your PM CPMS,

Y_1 = the three run average lb/MMBtu PM concentration,

X_1 = the three run average milliamp output from you PM CPMS, and

z = the milliamp equivalent of your instrument zero determined from (B)(i).

(*4*) Determine your source specific 30-day rolling average operating limit using the lb/MMBtu per milliamp value from Equation 11 in equation 12, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_l = z + \frac{0.75(L)}{R} \qquad \text{(Eq. 12)}$$

Where:

O_l = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps.

L = your source emission limit expressed in lb/MMBtu,

z = your instrument zero in milliamps, determined from (B)(i), and

R = the relative lb/MMBtu per milliamp for your PM CPMS, from Equation 11.

(C) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your 30-day rolling average operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using equation 13 and you must submit all compliance test and PM CPMS data according to the reporting requirements in paragraph (b)(4)(ii)(F) of this section.

$$O_h = \frac{1}{n}\sum_{i=1}^{n} X_1 \qquad \text{(Eq. 13)}$$

Where:

X_1 = the PM CPMS data points for all runs i,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps.

(D) To determine continuous compliance, you must record the PM

CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new operating hour. Use Equation 14 to determine the 30-day rolling average.

$$30-\text{day} = \frac{\sum_{i=1}^{n} Hpv_i}{n} \qquad \text{(Eq. 14)}$$

Where:

30-day = 30-day average.

Hpvi = is the hourly parameter value for hour i

n = is the number of valid hourly parameter values collected over the previous 720 operating hours.

(E) Use EPA Method 5 of appendix A to part 60 of this chapter to determine PM emissions. For each performance test, conduct three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. Conduct each test run to collect a minimum sample volume specified in Tables 1, 2, or 11 through 13 to this subpart, as applicable, for determining compliance with a new source limit or an existing source limit. Calculate the average of the results from three runs to determine compliance. You need not determine the PM collected in the impingers (''back half'') of the Method 5 particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the ''back half'' for other purposes.

(F) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run. (iii) For a particulate wet scrubber, you must establish the minimum pressure drop and liquid flow rate as defined in § 63.7575, as your operating limits during the three-run performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for PM and TSM emissions, you must establish one set of minimum scrubber liquid flow rate and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the higher of the minimum values established during the performance tests.

(iii) For an electrostatic precipitator (ESP) operated with a wet scrubber, you must establish the minimum total secondary electric power input, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit. (These operating limits do not apply to ESP that are operated as dry controls without a wet scrubber.)

(iv) For a dry scrubber, you must establish the minimum sorbent injection rate for each sorbent, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(v) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(vi) The operating limit for boilers or process heaters with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alert is not activated more than 5 percent of the operating time during a 6-month period.

(vii) For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

(viii) The operating limit for boilers or process heaters that demonstrate continuous compliance with the HCl emission limit using a SO_2 CEMS is to install and operate the SO_2 according to the requirements in § 63.7525(m) establish a maximum SO_2 emission rate equal to the highest hourly average SO_2 measurement during the most recent three-run performance test for HCl.

(c) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (c)(1) through (5) of this section.

* * * * *

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided t-statistic test described in Equation 15 of this section.

$$P90 = mean + (SD \times t) \qquad \text{(Eq. 15)}$$

Where:

P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

Mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu. SD is calculated as the sample standard

deviation divided by the square root of the number of samples.

t = t distribution critical value for 90th percentile ($t_{0.1}$) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 16 of this section must not exceed the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n} \left(Ci90 \times Qi \times 1.028 \right) \qquad \text{(Eq. 16)}$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 17 of this section must not exceed the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^{n} \left(Hgi90 \times Qi \right) \qquad \text{(Eq. 17)}$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

Hgi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(5) To demonstrate compliance with the applicable emission limit for TSM for solid or liquid fuels, the TSM emission rate that you calculate for your boiler or process heater from solid fuels using Equation 18 of this section must not exceed the applicable emission limit for TSM.

$$Metals = \sum_{i=1}^{n} \left(TSM90i \times Qi \right) \qquad \text{(Eq. 18)}$$

Where:

Metals = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

TSMi90 = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest TSM content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest TSM content.

(d) If you own or operate an existing unit with a heat input capacity of less than 10 million Btu per hour or a unit in the unit designed to burn gas 1 subcategory, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the unit.

(e) You must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of your facility at the time of the assessment.

* * * * *

(g) If you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in § 63.7575, you must conduct an initial fuel specification analyses according to § 63.7521(f) through (i) and according to the frequency listed in § 63.7540(c) and maintain records of the results of the testing as outlined in § 63.7555(g). For samples where the initial mercury specification has not been exceeded, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels.

(h) If you own or operate a unit subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart, you must meet the work practice standard according to Table 3 of this subpart. During startup and shutdown, you must only follow the work practice standards according to item 5 of Table 3 of this subpart.

(i) If you opt to comply with the alternative SO_2 CEMS operating limit in Tables 4 and 8 to this subpart, you may do so only if your affected boiler or process heater:

(1) Has a system using wet scrubber or dry sorbent injection and SO_2 CEMS installed on the unit; and

(2) At all times, you operate the wet scrubber or dry sorbent injection for acid gas control on the unit consistent with § 63.7500(a)(3); and

(3) You establish a unit-specific maximum SO_2 operating limit by

collecting the minimum hourly SO_2 emission rate on the SO_2 CEMS during the paired 3-run test for HCl. The maximum SO_2 operating limit is equal to the highest hourly average SO_2 concentration measured during the most recent HCl performance test.

■ 19. Section 63.7533 is amended by:
■ a. Revising the section heading.
■ b. Revising paragraph (a).
■ c. Revising paragraphs (b)(1) and (4).
■ d. Revising paragraphs (c) introductory text, (c)(1)(i) and (ii), (c)(2)(i), and (c)(3).
■ e. Revising paragraph (d) through (f).
■ f. Adding paragraph (g).

The revisions and addition read as follows:

§ 63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?

(a) If you elect to comply with the alternative equivalent output-based emission limits, instead of the heat input-based limits listed in Table 2 to this subpart, and you want to take credit for implementing energy conservation measures identified in an energy assessment, you may demonstrate compliance using efficiency credits according to the procedures in this section. You may use this compliance approach for an existing affected boiler for demonstrating initial compliance according to § 63.7522(e) and for demonstrating monthly compliance according to § 63.7522(f). Owners or operators using this compliance approach must establish an emissions benchmark, calculate and document the efficiency credits, develop an Implementation Plan, comply with the general reporting requirements, and apply the efficiency credit according to the procedures in paragraphs (b) through (f) of this section. You cannot use this compliance approach for a new or reconstructed affected boiler. Additional guidance from the Department of Energy on efficiency credits is available at: *http://www.epa.gov/ttn/atw/boiler/boilerpg.html.*

(b) * * *

(1) The benchmark from which efficiency credits may be generated shall be determined by using the most representative, accurate, and reliable process available for the source. The benchmark shall be established for a one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

* * * * *

(4) Collect non-energy related facility and operational data to normalize, if necessary, the benchmark to current operations, such as building size, operating hours, etc. If possible, use actual data that are current and timely rather than estimated data.

(c) Efficiency credits can be generated if the energy conservation measures were implemented after January 1, 2008 and if sufficient information is available to determine the appropriate value of credits.

(1) The following emission points cannot be used to generate efficiency credits:

(i) Energy conservation measures implemented on or before January 1, 2008, unless the level of energy demand reduction is increased after January 1, 2008, in which case credit will be allowed only for change in demand reduction achieved after January 1, 2008.

(ii) Efficiency credits on shut-down boilers. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to energy conservation measures identified in the energy assessment. In this case, the bench established for the affected boiler to which the credits from the shutdown will be applied must be revised to include the benchmark established for the shutdown boiler.

(2) * * *

(i) Calculate annual credits for all energy demand points. Use Equation 19 to calculate credits. Energy conservation measures that meet the criteria of paragraph (c)(1) of this section shall not be included, except as specified in paragraph (c)(1)(i) of this section.

* * * * *

(3) Credits are generated by the difference between the benchmark that is established for each affected boiler, and the actual energy demand reductions from energy conservation measures implemented after January 1, 2008. Credits shall be calculated using Equation 19 of this section as follows:

(i) The overall equation for calculating credits is:

$$ECredits = \left(\sum_{i=1}^{n} EIS_{iactual} \right) \div EI_{baseline} \qquad \text{(Eq. 19)}$$

Where:

ECredits = Energy Input Savings for all energy conservation measures implemented for an affected boiler, expressed as a decimal fraction of the baseline energy input.

$EIS_{iactual}$ = Energy Input Savings for each energy conservation measure, i, implemented for an affected boiler, million Btu per year.

$EI_{baseline}$ = Energy Input baseline for the affected boiler, million Btu per year.

n = Number of energy conservation measures included in the efficiency credit for the affected boiler.

(ii) [Reserved]

(d) The owner or operator shall develop, and submit for approval upon request by the Administrator, an Implementation Plan containing all of the information required in this paragraph for all boilers to be included in an efficiency credit approach. The Implementation Plan shall identify all existing affected boilers to be included in applying the efficiency credits. The Implementation Plan shall include a description of the energy conservation measures implemented and the energy savings generated from each measure and an explanation of the criteria used for determining that savings. If requested, you must submit the implementation plan for efficiency credits to the Administrator for review and approval no later than 180 days before the date on which the facility intends to demonstrate compliance using the efficiency credit approach.

(e) The emissions rate as calculated using Equation 20 of this section from each existing boiler participating in the efficiency credit option must be in compliance with the limits in Table 2 to this subpart at all times the affected unit is operating, following the compliance date specified in § 63.7495.

(f) You must use Equation 20 of this section to demonstrate initial compliance by demonstrating that the emissions from the affected boiler participating in the efficiency credit compliance approach do not exceed the emission limits in Table 2 to this subpart.

$$E_{adj} = E_m \times (1 - ECredits) \quad \text{(Eq. 20)}$$

Where:

E_{adj} = Emission level adjusted by applying the efficiency credits earned, lb per million Btu steam output (or lb per MWh) for the affected boiler.

E_m = Emissions measured during the performance test, lb per million Btu steam output (or lb per MWh) for the affected boiler.

ECredits = Efficiency credits from Equation 19 for the affected boiler.

(g) As part of each compliance report submitted as required under § 63.7550, you must include documentation that the energy conservation measures implemented continue to generate the credit for use in demonstrating compliance with the emission limits.

■ 20. Section 63.7535 is amended by revising the section heading and paragraphs (b), (c), and (d) to read as follows:

§ 63.7535 Is there a minimum amount of monitoring data I must obtain?

* * * * *

(b) You must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see § 63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. You must calculate monitoring results using all other monitoring data collected while the process is operating. You must report all periods when the monitoring system is out of control in your annual report.

■ 21. Section 63.7540 is revised to read as follows:

§ 63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of this subpart except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.

(2) As specified in § 63.7550(c), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:

(i) Lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel, you must recalculate the HCl emission rate using Equation 12 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the HCl emission rate.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 12 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of § 63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the

procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to conduct fuel analyses for and include the fuels described in § 63.7510(a)(2)(i) through (iii).

(5) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 13 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 13 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 8 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(7) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alert and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the periods which would cause an alert are no more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alert, the time corrective action was initiated and completed, and a brief description of the cause of the alert and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the conditions exist for an alert. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alert time is counted. If corrective action is required, each alert shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alert time shall be counted as the actual amount of time taken to initiate corrective action.

(8) To demonstrate compliance with the applicable alternative CO CEMS emission limit listed in Tables 1, 2, or 11 through 13 to this subpart, you must meet the requirements in paragraphs (a)(8)(i) through (iv) of this section.

(i) Continuously monitor CO according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a CO emission level below or at your applicable alternative CO CEMS-based standard in Tables 1 or 2 or 11 through 13 to this subpart at all times the affected unit is operating.

(iii) Keep records of CO levels according to § 63.7555(b).

(iv) You must record and make available upon request results of CO CEMS performance audits, dates and duration of periods when the CO CEMS is out of control to completion of the corrective actions necessary to return the CO CEMS to operation consistent with your site-specific monitoring plan.

(9) The owner or operator of a boiler or process heater using a PM CPMS or a PM CEMS to meet requirements of this subpart shall install, certify, operate, and maintain the PM CPMS or PM CEMS in accordance with your site-specific monitoring plan as required in § 63.7505(d).

(10) If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this section. This frequency does not apply to limited-use boilers and process heaters, as defined in § 63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(11) If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of this section), you must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance.

(12) If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.

(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

(14) If you are using a CEMS measuring mercury emissions to meet requirements of this subpart you must install, certify, operate, and maintain the mercury CEMS as specified in paragraphs (a)(14)(i) and (ii) of this section.

(i) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B or operate a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(15) If you are using a CEMS to measure HCl emissions to meet requirements of this subpart, you must install, certify, operate, and maintain the HCl CEMS as specified in paragraphs (a)(15)(i) and (ii) of this section. This option for an affected unit takes effect on the date a final performance specification for an HCl CEMS is published in the **Federal Register** or the date of approval of a site-specific monitoring plan.

(i) Operate the continuous emissions monitoring system in accordance with the applicable performance specification in 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly HCl concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a HCl CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the HCl mass emissions rate to the atmosphere according to the requirements of the applicable performance specification of 40 CFR part 60, appendix B, and the quality assurance procedures of 40 CFR part 60, appendix F.

(16) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 9 of § 63.7530. If the results of recalculating the maximum TSM input using Equation 9 of § 63.7530 are higher than the maximum total selected input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(17) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis for solid or liquid fuels, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 14 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 14 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(18) If you demonstrate continuous PM emissions compliance with a PM CPMS you will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. You will conduct your performance test using the test method criteria in Table 5 of this subpart. You will use the PM CPMS to demonstrate continuous compliance with this operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(i) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new boiler or process heater operating hour.

(ii) For any deviation of the 30-day rolling PM CPMS average value from the established operating parameter limit, you must:

(A) Within 48 hours of the deviation, visually inspect the air pollution control device (APCD);

(B) If inspection of the APCD identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

(iii) PM CPMS deviations from the operating limit leading to more than four required performance tests in a 12-month operating period constitute a separate violation of this subpart.

(19) If you choose to comply with the PM filterable emissions limit by using PM CEMS you must install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (a)(19)(i) through (vii) of this section. The compliance limit will be expressed as a 30-day rolling average of the numerical emissions limit value applicable for your unit in Tables 1 or 2 or 11 through 13 of this subpart.

(i) Install and certify your PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to part 60 of this chapter, using test criteria outlined in Table V of this rule. The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).

(ii) Operate and maintain your PM CEMS according to the procedures and requirements in Procedure 2— Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter.

(A) You must conduct the relative response audit (RRA) for your PM CEMS at least once annually.

(B) You must conduct the relative correlation audit (RCA) for your PM CEMS at least once every 3 years.

(iii) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in paragraph (i) of this section.

(iv) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler or process heater operating hours.

(v) You must collect data using the PM CEMS at all times the unit is operating and at the intervals specified this paragraph (a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(vi) You must use all the data collected during all boiler or process heater operating hours in assessing the compliance with your operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in your annual deviation report;

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in your annual deviation report;

(C) Any data recorded during periods of startup or shutdown.

(vii) You must record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 or 11 through 13 to this subpart that apply to you. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must follow the sampling frequency specified in paragraphs (c)(1) through (4) of this section and conduct this sampling according to the procedures in § 63.7521(f) through (i).

(1) If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification as defined in § 63.7575, you do not need to conduct further sampling.

(2) If the initial mercury constituents are greater than half but equal to or less than 75 percent of the mercury specification as defined in § 63.7575, you will conduct semi-annual sampling. If 6 consecutive semi-annual fuel analyses demonstrate 50 percent or less of the mercury specification, you do not need to conduct further sampling. If any semi-annual sample exceeds 75 percent of the mercury specification, you must return to monthly sampling for that fuel, until 12 months of fuel analyses again are less than 75 percent of the compliance level.

(3) If the initial mercury constituents are greater than 75 percent of the mercury specification as defined in § 63.7575, you will conduct monthly sampling. If 12 consecutive monthly fuel analyses demonstrate 75 percent or less of the mercury specification, you may decrease the fuel analysis frequency to semi-annual for that fuel.

(4) If the initial sample exceeds the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting this fuel is not part of the unit designed to burn gas 1 subcategory and must be in compliance with the emission and operating limits for the appropriate subcategory. You may elect to conduct additional monthly sampling while complying with these emissions and operating limits to demonstrate that the fuel qualifies as another gas 1 fuel. If 12 consecutive monthly fuel analyses samples are at or below the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting the fuel can elect to switch back into the unit designed to burn gas 1 subcategory until the mercury specification is exceeded.

(d) For startup and shutdown, you must meet the work practice standards according to item 5 of Table 3 of this subpart.

■ 22. Section 63.7541 is amended by revising paragraphs (a)(3) and (4) to read as follows:

§ 63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?

* * * * *

(a) * * *

(3) For each existing unit participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 30-day rolling average parameter values at or above the operating limits established during the most recent performance test.

(4) For each existing unit participating in the emissions averaging option that has an approved alternative operating parameter, maintain the 30-day rolling

average parameter values consistent with the approved monitoring plan.

* * * * *

■ 23. Section 63.7545 is amended by:
■ a. Revising paragraphs (a) through (c).
■ b. Revising paragraphs (e) introductory text, (e)(1), (e)(2), (e)(3), (e)(4), (e)(5) introductory text, and (e)(5)(i).
■ c. Adding paragraph (e)(5)(ii).
■ d. Revising paragraphs (e)(8)(i) and (iii).
■ e. Revising paragraph (f) introductory text.
■ f. Revising paragraphs (g)(1) and (2).
■ g. Revising paragraphs (h) introductory text and (h)(1) and (3).
■ h. Removing paragraph (h)(4).

The revisions and addition read as follows:

§ 63.7545 What notifications must I submit and when?

(a) You must submit to the Administrator all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013.

(c) As specified in § 63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

* * * * *

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8).

(1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under § 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of § 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

(2) Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits, and including:

(i) Identification of whether you are complying with the PM emission limit or the alternative TSM emission limit.

(ii) Identification of whether you are complying with the output-based emission limits or the heat input-based (i.e., lb/MMBtu or ppm) emission limits,

(3) A summary of the maximum CO emission levels recorded during the performance test to show that you have met any applicable emission standard in Tables 1, 2, or 11 through 13 to this subpart, if you are not using a CO CEMS to demonstrate compliance.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging and identification of whether you plan to demonstrate compliance by using efficiency credits through energy conservation:

(i) If you plan to demonstrate compliance by emission averaging, report the emission level that was being achieved or the control technology employed on January 31, 2013.

(ii) [Reserved]

* * * * *

(8) * * *

(i) ''This facility complies with the required initial tune-up according to the procedures in § 63.7540(a)(10)(i) through (vi).''

* * * * *

(iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: ''No secondary materials that are solid waste were combusted in any affected unit.''

(f) If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in § 63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

* * * * *

(g) * * *

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategories under this subpart.

* * * * *

(h) If you have switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.

* * * * *

(3) The date upon which the fuel switch or physical change occurred.

■ 24. Section 63.7550 is revised to read as follows:

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission

limits or operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in § 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to a the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this section.

(2) If a facility is complying with the fuel analysis they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv), (vi), (x), (xi), (xiii), (xv) and paragraph (d) of this section.

(3) If a facility is complying with the applicable emissions limit with performance testing they must submit a compliance report with the information in (c)(5)(i) through (iv), (vi), (vii), (ix), (xi), (xiii), (xv) and paragraph (d) of this section.

(4) If a facility is complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (vi), (xi), (xiii), (xv) through (xvii), and paragraph (e) of this section.

(5)(i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) The total operating time during the reporting period.

(v) If you use a CMS, including CEMS, COMS, or CPMS, you must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit.

(vi) The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(vii) If you are conducting performance tests once every 3 years consistent with § 63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(viii) A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 12 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 13 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 14 of § 63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(ix) If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of § 63.7530 or the maximum mercury input operating limit using Equation 8 of § 63.7530, or the maximum TSM input operating limit using Equation 9 of § 63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(x) A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§ 63.7521 and 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to §§ 63.7521(f) and 63.7530(g).

(xi) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.

(xii) If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.

(xiii) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or

may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with § 63.7500(a)(3), including actions taken to correct the malfunction.

(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

(xv) If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in § 63.7545(e)(5)(i).

(xvi) For each reporting period, the compliance reports must include all of the calculated 30 day rolling average values based on the daily CEMS (CO and mercury) and CPMS (PM CPMS output, scrubber pH, scrubber liquid flow rate, scrubber pressure drop) data.

(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(d) For each deviation from an emission limit or operating limit in this subpart that occurs at an individual boiler or process heater where you are not using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (d)(1) through (3) of this section.

(1) A description of the deviation and which emission limit or operating limit from which you deviated.

(2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(3) If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.

(e) For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of this section. This includes any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) A brief description of the source for which there was a deviation.

(9) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) [Reserved]

(g) [Reserved]

(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section.

(1) Within 60 days after the date of completing each performance test (defined in § 63.2) as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart and the compliance reports required in § 63.7550(b) to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the Administrator, you must also submit these reports, including the confidential business information, to the Administrator in the format specified by the Administrator. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator.

(2) Within 60 days after the date of completing each CEMS performance evaluation test (defined in 63.2) you must submit the relative accuracy test audit (RATA) data to the EPA's Central Data Exchange by using CEDRI as mentioned in paragraph (h)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator.

(3) You must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in § 63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

■ 25. Section 63.7555 is amended by:

■ a. Revising paragraphs (d) introductory text and (d)(2) through (6).

■ b. Adding paragraphs (d)(9) through (11).

■ c. Revising paragraphs (f) through (h).

■ d. Adding paragraphs (i) and (j).

The revisions and additions read as follows:

§ 63.7555 What records must I keep?

* * * * *

(d) For each boiler or process heater subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must also keep the applicable records in paragraphs (d)(1) through (11) of this section.

* * * * *

(2) If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) and (2) of this chapter, you must keep a record that documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1) of this chapter. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfy the definition of processing in § 241.2 of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4 of this chapter, you must keep records documenting that the material is listed as a non-waste under § 241.4(a) of this chapter. Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2).

(3) For units in the limited use subcategory, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating.

(4) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 12 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 13 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(6) If, consistent with § 63.7515(b), you choose to stack test less frequently than annually, you must keep a record that documents that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Tables 1 and 2 or 11 through 13 to this subpart, less than the applicable emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

* * * * *

(9) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 14 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(10) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(11) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

* * * * *

(f) If you elect to use efficiency credits from energy conservation measures to demonstrate compliance according to § 63.7533, you must keep a copy of the Implementation Plan required in § 63.7533(d) and copies of all data and calculations used to establish credits according to § 63.7533(b), (c), and (f).

(g) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must maintain monthly records (or at the frequency required by § 63.7540(c)) of the calculations and results of the fuel specification for mercury in Table 6.

(h) If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

(i) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(j) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

■ 26. Section 63.7570 is amended by revising paragraph (a) and paragraph (b) introductory text to read as follows:

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the EPA, or an Administrator such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this

subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency, however, the EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

* * * * *

■ 27. Section 63.7575 is amended by:

■ a. Adding in alphabetical order definitions for ''10-day rolling average,'' ''30-day rolling average,'' ''Annual capacity factor,'' ''Average annual heat input rate,'' ''Benchmark,'' ''Biodiesel,'' ''Daily block average,'' ''Efficiency credit,'' ''Energy management program,'' ''Fluidized bed boiler with an integrated fluidized bed heat exchanger,'' ''Heavy liquid,'' ''Light liquid,'' '' ''Major source for oil and natural gas production facilities,'' ''Minimum oxygen level,'' ''Other combustor'', ''Oxygen analyzer system'', ''Oxygen trim system'', ''Pile burner'', ''Regulated gas stream'', ''Residential boiler,'' ''Residual oil'', ''Secondary material,'' ''Shutdown'', ''Sloped grate'', ''Startup'', ''Stoker/sloped grate/other unit designed to burn kiln dried biomass,'' Stoker/sloped grate/other unit designed to burn wet biomass,'' ''Suspension burner,'' ''Total selected metals (TSM),'' ''Traditional fuel,'' ''Ultra low sulfur liquid fuel,'' ''Unit designed to burn heavy liquid subcategory,'' ''Unit designed to burn light liquid subcategory,'' and ''Vegetable oil.''

■ b. Revising the definitions for ''Boiler,'' ''Boiler system,'' ''Coal,'' Commercial/institutional boiler,'' ''Deviation,'' ''Distillate oil,'' ''Dry scrubber,'' ''Dutch oven,'' ''Electric utility steam generating unit,'' ''Energy assessment,'' ''Energy use system,'' ''Equivalent,'' ''Federally enforceable,'' ''Fluidized bed boiler'', ''Fuel cell,'' ''Fuel type,'' ''Gaseous fuel,'' ''Heat input,'' ''Hot water heater,'' ''Hybrid suspension grate boiler,'' ''Industrial boiler,'' ''Limited-use boiler or process heater,'' ''Liquid fuel,'' ''Load fraction,'' ''Metal process furnaces,'' ''Minimum activated carbon injection rate,'' ''Minimum scrubber liquid flow rate,'' ''Minimum sorbent injection rate,'' ''Natural gas,'' ''Other gas 1 fuel,'' ''Period of natural gas curtailment or supply interruption,'' ''Process heater,'' ''Qualified energy assessor,'' ''Residual oil,'' ''Solid fossil fuel,'' ''Steam output,'' ''Stoker,'' ''Temporary boiler,'' ''Tune-up,'' ''Unit designed to burn gas 1 subcategory,'' ''Unit designed to burn gas 2 (other) subcategory,'' ''Unit designed to burn liquid subcategory,'' ''Unit designed to burn liquid fuel that is a non-continental unit,'' ''Unit designed to burn solid fuel,'' ''Waste heat boiler,'' ''Waste heat process heater.''

■ c. Removing the definitions for ''Benchmarking,'' ''Emission credit,'' ''Liquid fuel subcategory,'' and ''Suspension boiler.''

The revisions read as follows:

§ 63.7575 What definitions apply to this subpart?

* * * * *

10-day rolling average means the arithmetic mean of the previous 240 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 240 hours should be consecutive, but not necessarily continuous if operations were intermittent.

30-day rolling average means the arithmetic mean of the previous 720 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 720 hours should be consecutive, but not necessarily continuous if operations were intermittent.

* * * * *

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Average annual heat input rate means total heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

* * * * *

Benchmark means the fuel heat input for a boiler or process heater for the one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

Biodiesel means a mono-alkyl ester derived from biomass and conforming to ASTM D6751–11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see § 63.14).

* * * * *

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers are excluded from this definition.

Boiler system means the boiler and associated components, such as, the feed water system, the combustion air system, the fuel system (including burners), blowdown system, combustion control systems, steam systems, and condensate return systems.

* * * * *

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM D388 (incorporated by reference, see § 63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of ''coal'' includes synthetic fuels derived from coal, including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

* * * * *

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, elementary and secondary schools, libraries, religious establishments, governmental buildings, hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

* * * * *

Daily block average means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of startup and shutdown or downtime.

Deviation.

(1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any applicable requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) A deviation is not always a violation.

* * * * *

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 63.14) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 63.14), kerosene, and biodiesel as defined by the American Society of Testing and Materials in ASTM D6751–11b (incorporated by reference, see § 60.14).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

Dutch oven means a unit having a refractory-walled cell connected to a conventional boiler setting. Fuel materials are introduced through an opening in the roof of the dutch oven and burn in a pile on its floor. Fluidized bed boilers are not part of the dutch oven design category.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit. To be ''capable of combusting'' fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after April 16, 2012.

* * * * *

Efficiency credit means emission reductions above those required by this subpart. Efficiency credits generated may be used to comply with the emissions limits. Credits may come from pollution prevention projects that result in reduced fuel use by affected units. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to implementation of the energy conservation measures identified in the energy assessment.

Energy assessment means the following for the emission units covered by this subpart:

(1) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of less than 0.3 trillion Btu (TBtu) per year will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour on-site energy assessment.

(2) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of 0.3 to 1.0 TBtu/year will be 24 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 33 percent of the energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing a 24-hour on-site energy assessment.

(3) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity greater than 1.0 TBtu/year will be up to 24 on-site technical labor hours in length for the first TBtu/yr plus 8 on-site technical labor hours for every additional 1.0 TBtu/yr not to exceed 160 on-site technical hours, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s), process heater(s), and any on-site energy use system(s) accounting for at least 20 percent of the energy (e.g., steam, process heat, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities.

(4) The on-site energy use systems serving as the basis for the percent of affected boiler(s) and process heater(s) energy production in paragraphs (1), (2), and (3) of this definition may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed (e.g., product X manufacturing area; product Y drying area; Building Z).

* * * * *

Energy management program means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

Energy use system includes the following systems located on-site that use energy (steam, hot water, or electricity) provided by the affected boiler or process heater: process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning systems; hot water systems; building envelop; and lighting; or other systems that use steam, hot water, process heat, or electricity provided by the affected boiler or process heater. Energy use systems are only those systems using energy clearly produced by affected boilers and process heaters.

Equivalent means the following only as this term is used in Table 6 to this subpart:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite

consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an ''as received'' basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.

(6) An equivalent pollutant (mercury, HCl) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to this subpart for the same purpose.

* * * * *

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including, but not limited to, the requirements of 40 CFR parts 60, 61, 63, and 65, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed boiler means a boiler utilizing a fluidized bed combustion process that is not a pulverized coal boiler.

Fluidized bed boiler with an integrated fluidized bed heat exchanger means a boiler utilizing a fluidized bed combustion where the entire tube surface area is located outside of the furnace section at the exit of the cyclone section and exposed to the flue gas stream for conductive heat transfer. This design applies only to boilers in the unit designed to burn coal/solid fossil fuel subcategory that fire coal refuse.

* * * * *

Fuel cell means a boiler type in which the fuel is dropped onto suspended fixed grates and is fired in a pile. The refractory-lined fuel cell uses combustion air preheating and positioning of secondary and tertiary air injection ports to improve boiler efficiency. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, and suspension burners are not part of the fuel cell subcategory.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas and process gases that are regulated under another subpart of this part, or part 60, part 61, or part 65 of this chapter, are exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, returned condensate, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Heavy liquid includes residual oil and any other liquid fuel not classified as a light liquid.

* * * * *

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass/bio-based solid fuel and is withdrawn for use external to the vessel. Hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 MMBtu/hr heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on demand hot water.

Hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Light liquid includes distillate oil, biodiesel, or vegetable oil.

Limited-use boiler or process heater means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

Liquid fuel includes, but is not limited to, light liquid, heavy liquid, any form of liquid fuel derived from petroleum, used oil, liquid biofuels, biodiesel, vegetable oil, and comparable fuels as defined under 40 CFR 261.38.

Load fraction means the actual heat input of a boiler or process heater divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5).

Major source for oil and natural gas production facilities, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment, as defined in this section), and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) Emissions from processes, operations, or equipment that are not part of the same facility, as defined in this section, shall not be aggregated; and

(3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage vessels with the potential for flash emissions shall be aggregated for a major source determination. For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated for a major source determination.

Metal process furnaces are a subcategory of process heaters, as defined in this subpart, which include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, and homogenizing furnaces.

* * * * *

Minimum activated carbon injection rate means load fraction multiplied by the lowest hourly average activated carbon injection rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum oxygen level means the lowest hourly average oxygen level measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

* * * * *

Minimum scrubber liquid flow rate means the lowest hourly average liquid flow rate (e.g., to the PM scrubber or to the acid gas scrubber) measured according to Table 7 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

* * * * *

Minimum sorbent injection rate means:

(1) The load fraction multiplied by the lowest hourly average sorbent injection rate for each sorbent measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits; or

(2) For fluidized bed combustion, the lowest average ratio of sorbent to sulfur measured during the most recent performance test.

* * * * *

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum gas, as defined in ASTM D1835 (incorporated by reference, see § 63.14); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot); or

(4) Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

* * * * *

Other combustor means a unit designed to burn solid fuel that is not classified as a dutch oven, fluidized bed, fuel cell, hybrid suspension grate boiler, pulverized coal boiler, stoker, sloped grate, or suspension boiler as defined in this subpart.

Other gas 1 fuel means a gaseous fuel that is not natural gas or refinery gas and does not exceed a maximum concentration of 40 micrograms/cubic meters of mercury.

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler or process heater, firebox, or other appropriate location. This definition includes oxygen trim systems. The source owner or operator must install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or CO monitor that automatically provides a feedback signal to the combustion air controller.

* * * * *

Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

Pile burner means a boiler design incorporating a design where the anticipated biomass fuel has a high relative moisture content. Grates serve to support the fuel, and underfire air flowing up through the grates provides oxygen for combustion, cools the grates, promotes turbulence in the fuel bed, and fires the fuel. The most common form of pile burning is the dutch oven.

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters are excluded from this definition.

* * * * *

Qualified energy assessor means:

(1) Someone who has demonstrated capabilities to evaluate energy savings opportunities for steam generation and major energy using systems, including, but not limited to:

(i) Boiler combustion management.

(ii) Boiler thermal energy recovery, including

(A) Conventional feed water economizer,

(B) Conventional combustion air preheater, and

(C) Condensing economizer.

(iii) Boiler blowdown thermal energy recovery.

(iv) Primary energy resource selection, including

(A) Fuel (primary energy source) switching, and

(B) Applied steam energy versus direct-fired energy versus electricity.

(v) Insulation issues.

(vi) Steam trap and steam leak management.

(vi) Condensate recovery.

(viii) Steam end-use management.

(2) Capabilities and knowledge includes, but is not limited to:

(i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.

(ii) Familiarity with operating and maintenance practices for steam or process heating systems.

(iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.

(iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.

(v) Boiler-steam turbine cogeneration systems.

(vi) Industry specific steam end-use systems.

* * * * *

Regulated gas stream means an offgas stream that is routed to a boiler or process heater for the purpose of achieving compliance with a standard under another subpart of this part or part 60, part 61, or part 65 of this chapter.

Residential boiler means a boiler used to provide heat and/or hot water and/or as part of a residential combined heat and power system. This definition includes boilers located at an institutional facility (e.g., university campus, military base, church grounds) or commercial/industrial facility (e.g., farm) used primarily to provide heat and/or hot water for:

(1) A dwelling containing four or fewer families; or

(2) A single unit residence dwelling that has since been converted or subdivided into condominiums or apartments.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society of Testing and Materials in ASTM D396–10 (incorporated by reference, *see* § 63.14(b)).

* * * * *

Secondary material means the material as defined in § 241.2 of this chapter.

Shutdown means the cessation of operation of a boiler or process heater for any purpose. Shutdown begins either when none of the steam from the boiler is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler or process heater, whichever is earlier. Shutdown ends when there is no steam and no heat being supplied and no fuel being fired in the boiler or process heater.

Sloped grate means a unit where the solid fuel is fed to the top of the grate from where it slides downwards; while sliding the fuel first dries and then ignites and burns. The ash is deposited at the bottom of the grate. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a sloped grate design.

Solid fossil fuel includes, but is not limited to, coal, coke, petroleum coke, and tire derived fuel.

* * * * *

Startup means either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler or process heater is supplied for heating, and/or producing electricity, or for any other purpose.

Steam output means:

(1) For a boiler that produces steam for process or heating only (no power generation), the energy content in terms of MMBtu of the boiler steam output,

(2) For a boiler that cogenerates process steam and electricity (also known as combined heat and power), the total energy output, which is the sum of the energy content of the steam exiting the turbine and sent to process in MMBtu and the energy of the electricity generated converted to MMBtu at a rate of 10,000 Btu per kilowatt-hour generated (10 MMBtu per megawatt-hour), and

(3) For a boiler that generates only electricity, the alternate output-based emission limits would be calculated using Equations 21 through 25 of this section, as appropriate:

(i) For emission limits for boilers in the unit designed to burn solid fuel subcategory use Equation 21 of this section:

$$EL_{OBE} = EL_T \times 12.7\ MMBtu/Mwh \quad \text{(Eq. 21)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(ii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn coal use Equation 22 of this section:

$$EL_{OBE} = EL_T \times 12.2\ MMBtu/Mwh \quad \text{(Eq. 22)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn biomass use Equation 23 of this section:

$$EL_{OBE} = EL_T \times 13.9\ MMBtu/Mwh \quad \text{(Eq. 23)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iv) For emission limits for boilers in one of the subcategories of units designed to burn liquid fuels use Equation 24 of this section:

$$EL_{OBE} = EL_T \times 13.8\ MMBtu/Mwh \quad \text{(Eq. 24)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(v) For emission limits for boilers in the unit designed to burn gas 2 (other)

subcategory, use Equation 25 of this section:

$$EL_{OBE} = EL_T \times 10.4\ MMBtu/Mwh \quad (Eq.\ 25)$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit under-grate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. This definition of stoker includes air swept stokers. There are two general types of stokers: Underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a stoker design.

Stoker/sloped grate/other unit designed to burn kiln dried biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and is not in the stoker/sloped grate/other units designed to burn wet biomass subcategory.

Stoker/sloped grate/other unit designed to burn wet biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and any of the biomass/bio-based solid fuel combusted in the unit exceeds 20 percent moisture on an annual heat input basis.

Suspension burner means a unit designed to fire dry biomass/biobased solid particles in suspension that are conveyed in an airstream to the furnace like pulverized coal. The combustion of the fuel material is completed on a grate or floor below. The biomass/biobased fuel combusted in the unit shall not exceed 20 percent moisture on an annual heat input basis. Fluidized bed, dutch oven, pile burner, and hybrid suspension grate units are not part of the suspension burner subcategory.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

Total selected metals (TSM) means the sum of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Traditional fuel means the fuel as defined in § 241.2 of this chapter.

Tune-up means adjustments made to a boiler or process heater in accordance with the procedures outlined in § 63.7540(a)(10).

* * * * *

Ultra low sulfur liquid fuel means a distillate oil that has less than or equal to 15 ppm sulfur.

* * * * *

Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

Unit designed to burn gas 2 (other) subcategory includes any boiler or process heater that is not in the unit designed to burn gas 1 subcategory and burns any gaseous fuels either alone or in combination with less than 10 percent coal/solid fossil fuel, and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, and no liquid fuels. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel during periods of gas curtailment or gas supply interruption of any duration are also included in this definition.

Unit designed to burn heavy liquid subcategory means a unit in the unit designed to burn liquid subcategory where at least 10 percent of the heat input from liquid fuels on an annual heat input basis comes from heavy liquids.

Unit designed to burn light liquid subcategory means a unit in the unit designed to burn liquid subcategory that is not part of the unit designed to burn heavy liquid subcategory.

Unit designed to burn liquid subcategory includes any boiler or process heater that burns any liquid fuel, but less than 10 percent coal/solid fossil fuel and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, either alone or in combination with gaseous fuels. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year are not included in this definition. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories during periods of gas curtailment or gas supply interruption of any duration are also not included in this definition.

Unit designed to burn liquid fuel that is a non-continental unit means an industrial, commercial, or institutional boiler or process heater meeting the definition of the unit designed to burn

liquid subcategory located in the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Unit designed to burn solid fuel subcategory means any boiler or process heater that burns only solid fuels or at least 10 percent solid fuel on an annual heat input basis in combination with liquid fuels or gaseous fuels.

Vegetable oil means oils extracted from vegetation.

* * * * *

Waste heat boiler means a device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. Waste heat boilers are heat exchangers generating steam from incoming hot exhaust gas from an industrial (e.g., thermal oxidizer, kiln, furnace) or power (e.g., combustion turbine, engine) equipment. Duct burners are sometimes used to increase the temperature of the incoming hot exhaust gas.

Waste heat process heater means an enclosed device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat process heaters are also referred to as recuperative process heaters. This definition includes both fired and unfired waste heat process heaters.

* * * * *

■ 28. Table 1 to subpart DDDDD of part 63 is revised to read as follows:

As stated in § 63.7500, you must comply with the following applicable emission limits:

TABLE 1 TO SUBPART DDDDD OF PART 63—EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	2.2E–02 lb per MMBtu of heat input.	2.5E–02 lb per MMBtu of steam output or 0.28 lb per MWh.	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.0E–07 [a] lb per MMBtu of heat input.	8.7E–07 [a] lb per MMBtu of steam output or 1.1E–05 [a] lb per MWh.	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.
2. Units designed to burn coal/solid fossil fuel.	a. Filterable PM (or TSM)	1.1E–03 lb per MMBtu of heat input; or (2.3E–05 lb per MMBtu of heat input).	1.1E–03 lb per MMBtu of steam output or 1.4E–02 lb per MWh; or (2.7E–05 lb per MMBtu of steam output or 2.9E–04 lb per MWh).	Collect a minimum of 3 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel.	a. Carbon monoxide (CO) (or CEMS).	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1.2E–01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average.	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel.	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	5.8E–01 lb per MMBtu of steam output or 6.8 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E–02 lb per MMBtu of heat input; or (2.6E–05 lb per MMBtu of heat input).	3.5E–02 lb per MMBtu of steam output or 4.2E–01 lb per MWh; or (2.7E–05 lb per MMBtu of steam output or 3.7E–04 lb per MWh).	Collect a minimum of 2 dscm per run.

TABLE 1 TO SUBPART DDDDD OF PART 63—EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS—Continued

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel.	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen.	4.2E–01 lb per MMBtu of steam output or 5.1 lb per MWh.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E–02 lb per MMBtu of heat input; or (4.0E–03 lb per MMBtu of heat input).	3.5E–02 lb per MMBtu of steam output or 4.2E–01 lb per MWh; or (4.2E–03 lb per MMBtu of steam output or 5.6E–02 lb per MWh).	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids.	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	2.2E–01 lb per MMBtu of steam output or 2.6 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E–03 lb per MMBtu of heat input; or (8.3E–05 [a] lb per MMBtu of heat input).	1.2E–02 lb per MMBtu of steam output or 0.14 lb per MWh; or (1.1E–04 [a] lb per MMBtu of steam output or 1.2E–03 [a] lb per MWh).	Collect a minimum of 3 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E–02 lb per MMBtu of heat input; or (6.5E–03 lb per MMBtu of heat input).	3.1E–02 lb per MMBtu of steam output or 4.2E–01 lb per MWh; or (6.6E–03 lb per MMBtu of steam output or 9.1E–02 lb per MWh).	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	330 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	3.5E–01 lb per MMBtu of steam output or 3.6 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E–03 lb per MMBtu of heat input; or (3.9E–05 lb per MMBtu of heat input).	4.3E–03 lb per MMBtu of steam output or 4.5E–02 lb per MWh; or (5.2E–05 lb per MMBtu of steam output or 5.5E–04 lb per MWh).	Collect a minimum of 3 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solids.	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen.	1.1 lb per MMBtu of steam output or 1.0E+01 lb per MWh.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E–02 lb per MMBtu of heat input; or (2.9E–05 [a] lb per MMBtu of heat input).	3.0E–02 lb per MMBtu of steam output or 2.8E–01 lb per MWh; or (5.1E–05 lb per MMBtu of steam output or 4.1E–04 lb per MWh).	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids.	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1.4 lb per MMBtu of steam output or 12 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E–02 lb per MMBtu of heat input; or (4.4E–04 lb per MMBtu of heat input).	3.3E–02 lb per MMBtu of steam output or 3.7E–01 lb per MWh; or (5.5E–04 lb per MMBtu of steam output or 6.2E–03 lb per MWh).	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel.	a. HCl	4.4E–04 lb per MMBtu of heat input.	4.8E–04 lb per MMBtu of steam output or 6.1E–03 lb per MWh.	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.8E–07 [a] lb per MMBtu of heat input.	5.3E–07 [a] lb per MMBtu of steam output or 6.7E–06 [a] lb per MWh.	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.

TABLE 1 TO SUBPART DDDDD OF PART 63—EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS—Continued

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
15. Units designed to burn heavy liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average.	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E–02 lb per MMBtu of heat input; or (7.5E–05 lb per MMBtu of heat input).	1.5E–02 lb per MMBtu of steam output or 1.8E–01 lb per MWh; or (8.2E–05 lb per MMBtu of steam output or 1.1E–03 lb per MWh).	Collect a minimum of 3 dscm per run.
16. Units designed to burn light liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	0.13 lb per MMBtu of steam output or 1.4 lb per MWh.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E–03 [a] lb per MMBtu of heat input; or (2.9E–05 lb per MMBtu of heat input).	1.2E–03 [a] lb per MMBtu of steam output or 1.6E–02 [a] lb per MWh; or (3.2E–05 lb per MMBtu of steam output or 4.0E–04 lb per MWh).	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test.	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E–02 lb per MMBtu of heat input; or (8.6E–04 lb per MMBtu of heat input).	2.5E–02 lb per MMBtu of steam output or 3.2E–01 lb per MWh; or (9.4E–04 lb per MMBtu of steam output or 1.2E–02 lb per MWh).	Collect a minimum of 4 dscm per run.
18. Units designed to burn gas 2 (other) gases.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	0.16 lb per MMBtu of steam output or 1.0 lb per MWh.	1 hr minimum sampling time.
	b. HCl	1.7E–03 lb per MMBtu of heat input.	2.9E–03 lb per MMBtu of steam output or 1.8E–02 lb per MWh.	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E–06 lb per MMBtu of heat input.	1.4E–05 lb per MMBtu of steam output or 8.3E–05 lb per MWh.	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E–03 lb per MMBtu of heat input; or (2.1E–04 lb per MMBtu of heat input).	1.2E–02 lb per MMBtu of steam output or 7.0E–02 lb per MWh; or (3.5E–04 lb per MMBtu of steam output or 2.2E–03 lb per MWh).	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote ''a'', your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[c] If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before January 31, 2013, you may comply with the emission limits in Tables 11, 12 or 13 to this subpart until January 31, 2016. On and after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

■ 29. Table 2 to subpart DDDDD of part 63 is revised to read as follows:

As stated in § 63.7500, you must comply with the following applicable emission limits:

TABLE 2 TO SUBPART DDDDD OF PART 63—EMISSION LIMITS FOR EXISTING BOILERS AND PROCESS HEATERS

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	2.2E–02 lb per MMBtu of heat input.	2.5E–02 lb per MMBtu of steam output or 0.27 lb per MWh.	For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.

TABLE 2 TO SUBPART DDDDD OF PART 63—EMISSION LIMITS FOR EXISTING BOILERS AND PROCESS HEATERS—Continued

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Mercury	5.7E–06 lb per MMBtu of heat input.	6.4E–06 lb per MMBtu of steam output or 7.3E–05 lb per MWh.	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel.	a. Filterable PM (or TSM)	4.0E–02 lb per MMBtu of heat input; or (5.3E–05 lb per MMBtu of heat input).	4.2E–02 lb per MMBtu of steam output or 4.9E–01 lb per MWh; or (5.6E–05 lb per MMBtu of steam output or 6.5E–04 lb per MWh).	Collect a minimum of 2 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	160 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	0.14 lb per MMBtu of steam output or 1.7 lb per MWh; 3-run average.	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1.3E–01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average.	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel.	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (720 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1.4 lb per MMBtu of steam output or 17 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.7E–02 lb per MMBtu of heat input; or (2.4E–04 lb per MMBtu of heat input).	4.3E–02 lb per MMBtu of steam output or 5.2E–01 lb per MWh; or (2.8E–04 lb per MMBtu of steam output or 3.4E–04 lb per MWh).	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel.	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen.	4.2E–01 lb per MMBtu of steam output or 5.1 lb per MWh.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E–01 lb per MMBtu of heat input; or (4.0E–03 lb per MMBtu of heat input).	3.7E–01 lb per MMBtu of steam output or 4.5 lb per MWh; or (4.6E–03 lb per MMBtu of steam output or 5.6E–02 lb per MWh).	Collect a minimum of 1 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solid.	a. CO (or CEMS)	470 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	4.6E–01 lb per MMBtu of steam output or 5.2 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E–01 lb per MMBtu of heat input; or (1.2E–03 lb per MMBtu of heat input).	1.4E–01 lb per MMBtu of steam output or 1.6 lb per MWh; or (1.5E–03 lb per MMBtu of steam output or 1.7E–02 lb per MWh).	Collect a minimum of 1 dscm per run.

TABLE 2 TO SUBPART DDDDD OF PART 63—EMISSION LIMITS FOR EXISTING BOILERS AND PROCESS HEATERS—Continued

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
10. Suspension burners designed to burn biomass/bio-based solid.	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E–02 lb per MMBtu of heat input; or (6.5E–03 lb per MMBtu of heat input).	5.2E–02 lb per MMBtu of steam output or 7.1E–01 lb per MWh; or (6.6E–03 lb per MMBtu of steam output or 9.1E–02 lb per MWh).	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solid.	a. CO (or CEMS)	770 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	8.4E–01 lb per MMBtu of steam output or 8.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E–01 lb per MMBtu of heat input; or (2.0E–03 lb per MMBtu of heat input).	3.9E–01 lb per MMBtu of steam output or 3.9 lb per MWh; or (2.8E–03 lb per MMBtu of steam output or 2.8E–02 lb per MWh).	Collect a minimum of 1 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solid.	a. CO	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen.	2.4 lb per MMBtu of steam output or 12 lb per MWh.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E–02 lb per MMBtu of heat input; or (5.8E–03 lb per MMBtu of heat input).	5.5E–02 lb per MMBtu of steam output or 2.8E–01 lb per MWh; or (1.6E–02 lb per MMBtu of steam output or 8.1E–02 lb per MWh).	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate units designed to burn biomass/bio-based solid.	a. CO (or CEMS)	2,800 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	2.8 lb per MMBtu of steam output or 31 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	4.4E–01 lb per MMBtu of heat input; or (4.5E–04 lb per MMBtu of heat input).	5.5E–01 lb per MMBtu of steam output or 6.2 lb per MWh; or (5.7E–04 lb per MMBtu of steam output or 6.3E–03 lb per MWh).	Collect a minimum of 1 dscm per run.
14. Units designed to burn liquid fuel.	a. HCl	1.1E–03 lb per MMBtu of heat input.	1.4E–03 lb per MMBtu of steam output or 1.6E–02 lb per MWh.	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	2.0E–06 lb per MMBtu of heat input.	2.5E–06 lb per MMBtu of steam output or 2.8E–05 lb per MWh.	For M29, collect a minimum of 3 dscm per run; for M30A or M30B collect a minimum sample as specified in the method, for ASTM D6784 [b] collect a minimum of 2 dscm.
15. Units designed to burn heavy liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average.	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	6.2E–02 lb per MMBtu of heat input; or (2.0E–04 lb per MMBtu of heat input).	7.5E–02 lb per MMBtu of steam output or 8.6E–01 lb per MWh; or (2.5E–04 lb per MMBtu of steam output or 2.8E–03 lb per MWh).	Collect a minimum of 1 dscm per run.
16. Units designed to burn light liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	0.13 lb per MMBtu of steam output or 1.4 lb per MWh.	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	7.9E–03 lb per MMBtu of heat input; or (6.2E–05 lb per MMBtu of heat input).	9.6E–03 lb per MMBtu of steam output or 1.1E–01 lb per MWh; or (7.5E–05 lb per MMBtu of steam output or 8.6E–04 lb per MWh).	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test.	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average.	1 hr minimum sampling time.

TABLE 2 TO SUBPART DDDDD OF PART 63—EMISSION LIMITS FOR EXISTING BOILERS AND PROCESS HEATERS—Continued

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	2.7E–01 lb per MMBtu of heat input; or (8.6E–04 lb per MMBtu of heat input).	3.3E–01 lb per MMBtu of steam output or 3.8 lb per MWh; or (1.1E–03 lb per MMBtu of steam output or 1.2E–02 lb per MWh).	Collect a minimum of 2 dscm per run.
18. Units designed to burn gas 2 (other) gases.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	0.16 lb per MMBtu of steam output or 1.0 lb per MWh.	1 hr minimum sampling time.
	b. HCl	1.7E–03 lb per MMBtu of heat input.	2.9E–03 lb per MMBtu of steam output or 1.8E–02 lb per MWh.	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E–06 lb per MMBtu of heat input.	1.4E–05 lb per MMBtu of steam output or 8.3E–05 lb per MWh.	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 2 dscm.
	d. Filterable PM (or TSM)	6.7E–03 lb per MMBtu of heat input or (2.1E–04 lb per MMBtu of heat input).	1.2E–02 lb per MMBtu of steam output or 7.0E–02 lb per MWh; or (3.5E–04 lb per MMBtu of steam output or 2.2E–03 lb per MWh).	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote a, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

■ 30. Table 3 to subpart DDDDD of part 63 is revised to read as follows:

As stated in § 63.7500, you must comply with the following applicable work practice standards:

TABLE 3 TO SUBPART DDDDD OF PART 63—WORK PRACTICE STANDARDS

If your unit is . . .	You must meet the following . . .
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater.	Conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.
2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid.	Conduct a tune-up of the boiler or process heater biennially as specified in § 63.7540.
3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater.	Conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.
4. An existing boiler or process heater located at a major source facility, not including limited use units.	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575: a. A visual inspection of the boiler or process heater system.

TABLE 3 TO SUBPART DDDDD OF PART 63—WORK PRACTICE STANDARDS—Continued

If your unit is . . .	You must meet the following . . .
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints. c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator. d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage. e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified. f. A list of cost-effective energy conservation measures that are within the facility's control. g. A list of the energy savings potential of the energy conservation measures identified. h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
5. An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or 11 through 13 to this subpart during startup.	You must operate all CMS during startup. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, and liquefied petroleum gas. If you start firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases, you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized bed combustion (FBC) boilers, dry scrubber, fabric filter, selective non-catalytic reduction (SNCR), and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose. You must comply with all applicable emission limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of startup, as specified in § 63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in § 63.7555.
6. An existing or new boiler or process heater subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart during shutdown.	You must operate all CMS during shutdown. While firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR. You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in § 63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in § 63.7555.

■ 31. Table 4 to subpart DDDDD of part 63 is revised to read as follows:

As stated in § 63.7500, you must comply with the applicable operating limits:

TABLE 4 TO SUBPART DDDDD OF PART 63—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .	You must meet these operating limits . . .
1. Wet PM scrubber control on a boiler not using a PM CPMS.	Maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the most recent performance test demonstrating compliance with the PM emission limitation according to § 63.7530(b) and Table 7 to this subpart.

TABLE 4 TO SUBPART DDDDD OF PART 63—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS—Continued

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .	You must meet these operating limits . . .
2. Wet acid gas (HCl) scrubber control on a boiler not using a HCl CEMS.	Maintain the 30-day rolling average effluent pH at or above the lowest one-hour average pH and the 30-day rolling average liquid flow rate at or above the lowest one-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the HCl emission limitation according to § 63.7530(b) and Table 7 to this subpart.
3. Fabric filter control on units not using a PM CPMS.	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); or b. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alert is not activated more than 5 percent of the operating time during each 6-month period.
4. Electrostatic precipitator control on units not using a PM CPMS.	a. This option is for boilers and process heaters that operate dry control systems (i.e., an ESP without a wet scrubber). Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average); or b. This option is only for boilers and process heaters not subject to PM CPMS or continuous compliance with an opacity limit (i.e., COMS). Maintain the 30-day rolling average total secondary electric power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(b) and Table 7 to this subpart.
5. Dry scrubber or carbon injection control on a boiler not using a mercury CEMS.	Maintain the minimum sorbent or carbon injection rate as defined in § 63.7575 of this subpart.
6. Any other add-on air pollution control type on units not using a PM CPMS.	This option is for boilers and process heaters that operate dry control systems. Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average).
7. Fuel analysis	Maintain the fuel type or fuel mixture such that the applicable emission rates calculated according to § 63.7530(c)(1), (2) and/or (3) is less than the applicable emission limits.
8. Performance testing	For boilers and process heaters that demonstrate compliance with a performance test, maintain the operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test.
9. Oxygen analyzer system	For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O_2 analyzer system as specified in § 63.7525(a), maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the most recent CO performance test, as specified in Table 8. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a).
10. SO_2 CEMS	For boilers or process heaters subject to an HCl emission limit that demonstrate compliance with an SO_2 CEMS, maintain the 30-day rolling average SO_2 emission rate at or below the highest hourly average SO_2 concentration measured during the most recent HCl performance test, as specified in Table 8.

■ 32. Table 5 to subpart DDDDD of part 63 is amended by:
■ a. Revising the entry for ''1. Particulate matter.''
■ b. Remove the entry for ''5. Dioxins/Furans''.
■ c. Redesignating the entries for ''2. Hydrogen chloride,'' ''3. Mercury,'' and ''4. CO'' as ''3. Hydrogen chloride,'' ''4. Mercury,'' and ''5. CO,'' respectively.
■ d. Revising the newly redesignated entries for ''4. Mercury'' and ''5. CO.''
■ e. Add entry for ''2. Total selected metals.''

The revisions and addition read as follows:

As stated in § 63.7520, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:

TABLE 5 TO SUBPART DDDDD OF PART 63—PERFORMANCE TESTING REQUIREMENTS

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
1. Filterable PM	a. Select sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A–1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G at 40 CFR part 60, appendix A–1 or A–2 to part 60 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A–2 to part 60 of this chapter, or ANSI/ASME PTC 19.10–1981.[a]
	d. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A–3 of this chapter.
	e. Measure the PM emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) at 40 CFR part 60, appendix A–3 or A–6 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology at 40 CFR part 60, appendix A–7 of this chapter.
2. TSM	a. Select sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A–1 of this chapter.

TABLE 5 TO SUBPART DDDDD OF PART 63—PERFORMANCE TESTING REQUIREMENTS—Continued

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G at 40 CFR part 60, appendix A–1 or A–2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A–1 of this chapter, or ANSI/ASME PTC 19.10–1981.[a]
	d. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A–3 of this chapter.
	e. Measure the TSM emission concentration ...	Method 29 at 40 CFR part 60, appendix A–8 of this chapter
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology at 40 CFR part 60, appendix A–7 of this chapter.
3. HCl	a. Select sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A–1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G at 40 CFR part 60, appendix A–2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A–2 of this chapter, or ANSI/ASME PTC 19.10–1981.[a]
	d. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A–3 of this chapter.
	e. Measure the HCl emission concentration	Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A–8 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology at 40 CFR part 60, appendix A–7 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A–1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G at 40 CFR part 60, appendix A–1 or A–2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A–1 of this chapter, or ANSI/ASME PTC 19.10–1981.[a]
	d. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A–3 of this chapter.
	e. Measure the mercury emission concentration.	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A–8 of this chapter or Method 101A at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784.[a]
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology at 40 CFR part 60, appendix A–7 of this chapter.
5. CO	a. Select the sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A–1 of this chapter.
	b. Determine oxygen concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A–3 of this chapter, or ASTM D6522–00 (Reapproved 2005), or ANSI/ASME PTC 19.10–1981.[a]
	c. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A–3 of this chapter.
	d. Measure the CO emission concentration	Method 10 at 40 CFR part 60, appendix A–4 of this chapter. Use a measurement span value of 2 times the concentration of the applicable emission limit.

* * * * *

■ 33. Table 6 to subpart DDDDD of part 63 is revised to read as follows:

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources. However, equivalent methods (as defined in § 63.7575) may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

TABLE 6 TO SUBPART DDDDD OF PART 63—FUEL ANALYSIS REQUIREMENTS

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192[a], or ASTM D7430[a], or ASTM D6883[a], or ASTM D2234/D2234M[a](for coal) or EPA 1631 or EPA 1631E or ASTM D6323[a] (for solid), or EPA 821–R–01–013 (for liquid or solid), or ASTM D4177[a] (for liquid), or ASTM D4057[a] (for liquid), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW–846–3050B[a] (for solid samples), EPA SW–846–3020A[a] (for liquid samples), ASTM D2013/D2013M[a] (for coal), ASTM D5198[a] (for biomass), or EPA 3050[a] (for solid fuel), or EPA 821–R–01–013[a] (for liquid or solid), or equivalent.

TABLE 6 TO SUBPART DDDDD OF PART 63—FUEL ANALYSIS REQUIREMENTS—Continued

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	d. Determine heat content of the fuel type	ASTM D5865[a] (for coal) or ASTM E711[a] (for biomass), or ASTM D5864[a] for liquids and other solids, or ASTM D240[a] or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173[a], ASTM E871[a], or ASTM D5864[a], or ASTM D240, or ASTM D95[a] (for liquid fuels), or ASTM D4006[a] (for liquid fuels), or ASTM D4177[a] (for liquid fuels) or ASTM D4057[a] (for liquid fuels), or equivalent.
	f. Measure mercury concentration in fuel sample.	ASTM D6722[a] (for coal), EPA SW–846–7471B[a] (for solid samples), or EPA SW–846–7470A[a] (for liquid samples), or equivalent.
	g. Convert concentration into units of pounds of mercury per MMBtu of heat content.	Equation 8 in § 63.7530.
	h. Calculate the mercury emission rate from the boiler or process heater in units of pounds per million Btu.	Equations 10 and 12 in § 63.7530.
2. HCl	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192[a], or ASTM D7430[a], or ASTM D6883[a], or ASTM D2234/D2234M[a] (for coal) or ASTM D6323[a] (for coal or biomass), ASTM D4177[a] (for liquid fuels) or ASTM D4057[a] (for liquid fuels), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW–846–3050B[a] (for solid samples), EPA SW–846–3020A[a] (for liquid samples), ASTM D2013/D2013M§[a] (for coal), or ASTM D5198§[a] (for biomass), or EPA 3050[a] or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865[a] (for coal) or ASTM E711[a] (for biomass), ASTM D5864, ASTM D240[a] or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173[a] or ASTM E871[a], or D5864[a], or ASTM D240[a], or ASTM D95[a] (for liquid fuels), or ASTM D4006[a] (for liquid fuels), or ASTM D4177[a] (for liquid fuels) or ASTM D4057[a] (for liquid fuels) or equivalent.
	f. Measure chlorine concentration in fuel sample.	EPA SW–846–9250[a], ASTM D6721[a], ASTM D4208[a] (for coal), or EPA SW–846–5050[a] or ASTM E776[a] (for solid fuel), or EPA SW–846–9056[a] or SW–846–9076[a] (for solids or liquids) or equivalent.
	g. Convert concentrations into units of pounds of HCl per MMBtu of heat content.	Equation 7 in § 63.7530.
	h. Calculate the HCl emission rate from the boiler or process heater in units of pounds per million Btu.	Equations 10 and 11 in § 63.7530.
3. Mercury Fuel Specification for other gas 1 fuels.	a. Measure mercury concentration in the fuel sample and convert to units of micrograms per cubic meter.	Method 30B (M30B) at 40 CFR part 60, appendix A–8 of this chapter or ASTM D5954[a], ASTM D6350[a], ISO 6978–1:2003(E)[a], or ISO 6978–2:2003(E)[a], or EPA–1631[a] or equivalent.
	b. Measure mercury concentration in the exhaust gas when firing only the other gas 1 fuel is fired in the boiler or process heater.	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A–8 of this chapter or Method 101A or Method 102 at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784[a] or equivalent.
4. TSM for solid fuels	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192[a], or ASTM D7430[a], or ASTM D6883[a], or ASTM D2234/D2234M[a] (for coal) or ASTM D6323[a] (for coal or biomass), or ASTM D4177[a],(for liquid fuels)or ASTM D4057[a] (for liquid fuels),or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW–846–3050B[a] (for solid samples), EPA SW–846–3020A[a] (for liquid samples), ASTM D2013/D2013M[a] (for coal), ASTM D5198[a] or TAPPI T266[a] (for biomass), or EPA 3050[a] or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865[a] (for coal) or ASTM E711[a] (for biomass), or ASTM D5864[a] for liquids and other solids, or ASTM D240[a] or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173[a] or ASTM E871[a], or D5864, or ASTM D240[a], or ASTM D95[a] (for liquid fuels), or ASTM D4006[a] (for liquid fuels), or ASTM D4177[a] (for liquid fuels) or ASTM D4057[a] (for liquid fuels), or equivalent.
	f. Measure TSM concentration in fuel sample ..	ASTM D3683[a], or ASTM D4606[a], or ASTM D6357[a] or EPA 200.8[a] or EPA SW–846–6020[a], or EPA SW–846–6020A[a], or EPA SW–846–6010C[a], EPA 7060[a] or EPA 7060A[a] (for arsenic only), or EPA SW–846–7740[a] (for selenium only).
	g. Convert concentrations into units of pounds of TSM per MMBtu of heat content.	Equation 9 in § 63.7530.
	h. Calculate the TSM emission rate from the boiler or process heater in units of pounds per million Btu.	Equations 10 and 13 in § 63.7530.

[a] Incorporated by reference, see § 63.14.

■ 34. Table 7 to subpart DDDDD of part 63 is amended by:
■ a. Revising the entry for ''1. Particulate matter or mercury,''.
■ b. Revising the entry for ''2. Hydrogen Chloride,''.
■ c. Revising the entry for ''3. Mercury,''.
■ d. Revising the entry for ''4. Carbon monoxide''.

The revisions read as follows:

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

TABLE 7 TO SUBPART DDDDD OF PART 63—ESTABLISHING OPERATING LIMITS

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. PM, TSM, or mercury	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum scrubber pressure drop and minimum flow rate operating limit according to § 63.7530(b).	(1) Data from the scrubber pressure drop and liquid flow rate monitors and the PM or mercury performance test.	(a) You must collect scrubber pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance tests. (b) Determine the lowest hourly average scrubber pressure drop and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers).	i. Establish a site-specific minimum total secondary electric power input according to § 63.7530(b).	(1) Data from the voltage and secondary amperage monitors during the PM or mercury performance test.	(a) You must collect secondary voltage and secondary amperage for each ESP cell and calculate total secondary electric power input data every 15 minutes during the entire period of the performance tests. (b) Determine the average total secondary electric power input by computing the hourly averages using all of the 15-minute readings taken during each performance test.
2. HCl	a. Wet scrubber operating parameters.	i. Establish site-specific minimum pressure drop, effluent pH, and flow rate operating limits according to § 63.7530(b).	(1) Data from the pressure drop, pH, and liquid flow-rate monitors and the HCl performance test.	(a) You must collect pH and liquid flow-rate data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average pH and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Dry scrubber operating parameters.	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(b). If different acid gas sorbents are used during the HCl performance test, the average value for each sorbent becomes the site-specific operating limit for that sorbent.	(1) Data from the sorbent injection rate monitors and HCl or mercury performance test.	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average sorbent injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average of the three test run averages established during the performance test as your operating limit. When your unit operates at lower loads, multiply your sorbent injection rate by the load fraction (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
	c. Alternative Maximum SO_2 emission rate.	i. Establish a site-specific maximum SO_2 emission rate operating limit according to § 63.7530(b).	(1) Data from SO_2 CEMS and the HCl performance test.	(a) You must collect the SO_2 emissions data according to § 63.7525(m) during the most recent HCl performance tests.

TABLE 7 TO SUBPART DDDDD OF PART 63—ESTABLISHING OPERATING LIMITS—Continued

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				(b) The maximum SO_2 emission rate is equal to the lowest hourly average SO_2 emission rate measured during the most recent HCl performance tests.
3. Mercury	a. Activated carbon injection	i. Establish a site-specific minimum activated carbon injection rate operating limit according to § 63.7530(b).	(1) Data from the activated carbon rate monitors and mercury performance test.	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average activated carbon injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average established during the performance test as your operating limit. When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction (*e.g.,* actual heat input divided by heat input during performance test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
4. Carbon monoxide	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to § 63.7520.	(1) Data from the oxygen analyzer system specified in § 63.7525(a).	(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average established during the performance test as your minimum operating limit.
*	*	*	*	*	*	*

■ 35. Table 8 to subpart DDDDD of part 63 is revised to read as follows:

As stated in § 63.7540, you must show continuous compliance with the emission limitations for each boiler or process heater according to the following:

TABLE 8 TO SUBPART DDDDD OF PART 63—DEMONSTRATING CONTINUOUS COMPLIANCE

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to § 63.7525(c) and § 63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining opacity to less than or equal to 10 percent (daily block average).
2. PM CPMS	a. Collecting the PM CPMS output data according to § 63.7525; b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average PM CPMS output data to less than the operating limit established during the performance test according to § 63.7530(b)(4).
3. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
4. Wet Scrubber Pressure Drop and Liquid Flow-rate.	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(b).
5. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and

TABLE 8 TO SUBPART DDDDD OF PART 63—DEMONSTRATING CONTINUOUS COMPLIANCE—Continued

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
	b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average pH at or above the operating limit established during the performance test according to § 63.7530(b).
6. Dry Scrubber Sorbent or Carbon Injection Rate.	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in § 63.7575.
7. Electrostatic Precipitator Total Secondary Electric Power Input.	a. Collecting the total secondary electric power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average total secondary electric power input at or above the operating limits established during the performance test according to § 63.7530(b).
8. Emission limits using fuel analysis	a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and b. Reduce the data to 12-month rolling averages; and c. Maintain the 12-month rolling average at or below the applicable emission limit for HCl or mercury or TSM in Tables 1 and 2 or 11 through 13 to this subpart.
9. Oxygen content	a. Continuously monitor the oxygen content using an oxygen analyzer system according to § 63.7525(a). This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a)(2). b. Reducing the data to 30-day rolling averages; and c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the most recent CO performance test.
10. Boiler or process heater operating load	a. Collecting operating load data or steam generation data every 15 minutes. b. Maintaining the operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test according to § 63.7520(c).
11. SO_2 emissions using SO_2 CEMS	a. Collecting the SO_2 CEMS output data according to § 63.7525; b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average SO_2 CEMS emission rate to a level at or below the minimum hourly SO_2 rate measured during the most recent HCl performance test according to § 63.7530.

■ 36. Table 9 to subpart DDDDD of part 63 is amended by revising the entry for ''1. Compliance report'' to read as follows:

As stated in § 63.7550, you must comply with the following requirements for reports:

TABLE 9 TO SUBPART DDDDD OF PART 63—REPORTING REQUIREMENTS

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in § 63.7550(c)(1) through (5); and	Semiannually, annually, biennially, or every 5 years according to the requirements in § 63.7550(b).
* * * * * * *		

■ 37. Table 10 to subpart DDDDD of part 63 is amended by:
■ a. Revising the entry for ''§ 63.6(i)''.
■ b. Revising the entry for ''§ 63.7(e)(1)''.
■ c. Revising the entry for ''63.8(g)''.
■ d. Revising the entry for ''§ 63.10(e) and (f)''.
■ e. Adding an entry for ''§ 63.10(e)''.

The revisions and addition read as follows.

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

TABLE 10 TO SUBPART DDDDD OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD

Citation	Subject	Applies to subpart DDDDD
* * * * * * *		
§ 63.6(i)	Extension of compliance	Yes. Note: Facilities may also request extensions of compliance for the installation of combined heat and power, waste heat recovery, or gas pipeline or fuel feeding infrastructure as a means of complying with this subpart.

TABLE 10 TO SUBPART DDDDD OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

Citation	Subject	Applies to subpart DDDDD
*	* * *	* * *
§ 63.7(e)(1)	Conditions for conducting performance tests	No. Subpart DDDDD specifies conditions for conducting performance tests at § 63.7520(a) to (c).
*	* * *	* * *
§ 63.8(g)	Reduction of monitoring data	Yes.
*	* * *	* * *
§ 63.10(e)	Additional reporting requirements for sources with CMS.	Yes.
§ 63.10(f)	Waiver of recordkeeping or reporting requirements.	Yes.
*	* * *	* * *

■ 38. Add Table 11 to subpart DDDDD of part 63 to read as follows:

TABLE 11 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER JUNE 4, 2010, AND BEFORE MAY 20, 2011

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
2. Units in all subcategories designed to burn solid fuel that combust at least 10 percent biomass/bio-based solids on an annual heat input basis and less than 10 percent coal/solid fossil fuels on an annual heat input basis.	a. Mercury	8.0E–07 [a] lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.
3. Units in all subcategories designed to burn solid fuel that combust at least 10 percent coal/solid fossil fuels on an annual heat input basis and less than 10 percent biomass/bio-based solids on an annual heat input basis.	a. Mercury	2.0E–06 lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.
4. Units designed to burn coal/solid fossil fuel.	a. Filterable PM (or TSM).	1.1E–03 lb per MMBtu of heat input; or (2.3E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
5. Pulverized coal boilers designed to burn coal/solid fossil fuel.	a. Carbon monoxide (CO) (or CEMS).	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
6. Stokers designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
7. Fluidized bed units designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.

TABLE 11 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER JUNE 4, 2010, AND BEFORE MAY 20, 2011—Continued

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
8. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
9. Stokers/sloped grate/others designed to burn wet biomass fuel.	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.0E–02 lb per MMBtu of heat input; or (2.6E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
10. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel.	a. CO	560 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.0E–02 lb per MMBtu of heat input; or (4.0E–03 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
11. Fluidized bed units designed to burn biomass/bio-based solids.	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	9.8E–03 lb per MMBtu of heat input; or (8.3E–05 [a] lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run
12. Suspension burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.0E–02 lb per MMBtu of heat input; or (6.5E–03 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
13. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	1,010 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	8.0E–03 lb per MMBtu of heat input; or (3.9E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
14. Fuel cell units designed to burn biomass/bio-based solids.	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.0E–02 lb per MMBtu of heat input; or (2.9E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
15. Hybrid suspension grate boiler designed to burn biomass/bio-based solids.	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.6E–02 lb per MMBtu of heat input; or (4.4E–04 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
16. Units designed to burn liquid fuel ..	a. HCl	4.4E–04 lb per MMBtu of heat input ...	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.

TABLE 11 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER JUNE 4, 2010, AND BEFORE MAY 20, 2011—Continued

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Mercury	4.8E–07 [a] lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.
17. Units designed to burn heavy liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.3E–02 lb per MMBtu of heat input; or (7.5E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
18. Units designed to burn light liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.0E–03 [a] lb per MMBtu of heat input; or (2.9E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run
19. Units designed to burn liquid fuel that are non-continental units.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.3E–02 lb per MMBtu of heat input; or (8.6E–04 lb per MMBtu of heat input).	Collect a minimum of 4 dscm per run
20. Units designed to burn gas 2 (other) gases.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. HCl	1.7E–03 lb per MMBtu of heat input	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E–06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 3 dscm.
	d. Filterable PM (or TSM).	6.7E–03 lb per MMBtu of heat input; or (2.1E–04 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote "a", your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

■ 39. Add Table 12 to subpart DDDDD of part 63 to read as follows:

TABLE 12 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER MAY 20, 2011, AND BEFORE DECEMBER 23, 2011

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	3.5E–06 [a] lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel.	a. Filterable PM (or TSM).	1.1E–03 lb per MMBtu of heat input; or (2.3E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.

TABLE 12 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER MAY 20, 2011, AND BEFORE DECEMBER 23, 2011—Continued

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
3. Pulverized coal boilers designed to burn coal/solid fossil fuel.	a. Carbon monoxide (CO) (or CEMS).	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel.	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.0E–02 lb per MMBtu of heat input; or (2.6E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel.	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.0E–02 lb per MMBtu of heat input; or (4.0E–03 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids.	a. CO (or CEMS)	260 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	9.8E–03 lb per MMBtu of heat input; or (8.3E–05 [a] lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.0E–02 lb per MMBtu of heat input; or (6.5E–03 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	470 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.2E–03 lb per MMBtu of heat input; or (3.9E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.

TABLE 12 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER MAY 20, 2011, AND BEFORE DECEMBER 23, 2011—Continued

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
12. Fuel cell units designed to burn biomass/bio-based solids.	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.0E–02 lb per MMBtu of heat input; or (2.9E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids.	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.6E–02 lb per MMBtu of heat input; or (4.4E–04 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel ..	a. HCl	4.4E–04 lb per MMBtu of heat input ...	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.8E–07 [a] lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.
15. Units designed to burn heavy liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.3E–02 lb per MMBtu of heat input; or (7.5E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
16. Units designed to burn light liquid fuel.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.3E–03 [a] lb per MMBtu of heat input; or (2.9E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.3E–02 lb per MMBtu of heat input; or (8.6E–04 lb per MMBtu of heat input).	Collect a minimum of 4 dscm per run.
18. Units designed to burn gas 2 (other) gases.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. HCl	1.7E–03 lb per MMBtu of heat input ...	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E–06 lb per MMBtu of heat input ...	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 3 dscm.
	d. Filterable PM (or TSM).	6.7E–03 lb per MMBtu of heat input; or (2.1E–04 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote ''a'', your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

■ 40. Add Table 13 to subpart DDDDD of part 63 to read as follows:

TABLE 13 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER DECEMBER 23, 2011, AND BEFORE JANUARY 31, 2013

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.6E–07 [a] lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.
2. Pulverized coal boilers designed to burn coal/solid fossil fuel.	a. Carbon monoxide (CO) (or CEMS).	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.1E–03 lb per MMBtu of heat input; or (2.8E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
3. Stokers designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.8E–02 lb per MMBtu of heat input; or (2.3E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
4. Fluidized bed units designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.1E–03 lb per MMBtu of heat input; or (2.3E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
5. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel.	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.1E–03 lb per MMBtu of heat input; or (2.3E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
6. Stokers/sloped grate/others designed to burn wet biomass fuel.	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (410 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.0E–02 lb per MMBtu of heat input; or (2.6E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
7. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel.	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.2E–01 lb per MMBtu of heat input; or (4.0E–03 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids.	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.

TABLE 13 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER DECEMBER 23, 2011, AND BEFORE JANUARY 31, 2013—Continued

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM).	9.8E–03 lb per MMBtu of heat input; or (8.3E–05 [a] lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
9. Suspension burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	5.1E–02 lb per MMBtu of heat input; or (6.5E–03 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
10. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids.	a. CO (or CEMS)	810 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	3.6E–02 lb per MMBtu of heat input; or (3.9E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
11. Fuel cell units designed to burn biomass/bio-based solids.	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.0E–02 lb per MMBtu of heat input; or (2.9E–05 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
12. Hybrid suspension grate boiler designed to burn biomass/bio-based solids.	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	2.6E–02 lb per MMBtu of heat input; or (4.4E–04 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
13. Units designed to burn liquid fuel ..	a. HCl	1.2E–03 lb per MMBtu of heat input ...	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.9E–07 [a] lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 4 dscm.
14. Units designed to burn heavy liquid fuel.	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (18 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.3E–03 lb per MMBtu of heat input; or (7.5E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
15. Units designed to burn light liquid fuel.	a. CO (or CEMS)	130 [a] ppm by volume on a dry basis corrected to 3 percent oxygen; or (60 ppm by volume on a dry basis corrected to 3 percent oxygen, 1-day block average)..	1 hr minimum sampling time.
	b. Filterable PM (or TSM).	1.1E–03 [a] lb per MMBtu of heat input; or (2.9E–05 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.
16. Units designed to burn liquid fuel that are non-continental units.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test; or (91 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-hour rolling average).	1 hr minimum sampling time.

TABLE 13 TO SUBPART DDDDD OF PART 63—ALTERNATIVE EMISSION LIMITS FOR NEW OR RECONSTRUCTED BOILERS AND PROCESS HEATERS THAT COMMENCED CONSTRUCTION OR RECONSTRUCTION AFTER DECEMBER 23, 2011, AND BEFORE JANUARY 31, 2013—Continued

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM).	2.3E–02 lb per MMBtu of heat input; or (8.6E–04 lb per MMBtu of heat input).	Collect a minimum of 2 dscm per run.
17. Units designed to burn gas 2 (other) gases.	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	b. HCl	1.7E–03 lb per MMBtu of heat input	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E–06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b] collect a minimum of 3 dscm.
	d. Filterable PM (or TSM).	6.7E–03 lb per MMBtu of heat input; or (2.1E–04 lb per MMBtu of heat input).	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit and you are not required to conduct testing for CEMS or CPMS monitor certification, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote "a", your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

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Part VI

Bureau of Consumer Financial Protection

12 CFR Part 1002
Disclosure and Delivery Requirements for Copies of Appraisals and Other Written Valuations Under the Equal Credit Opportunity Act (Regulation B); Final Rule

BUREAU OF CONSUMER FINANCIAL PROTECTION

12 CFR Part 1002

[Docket No. CFPB–2012–0032]

RIN 3170–AA26

Disclosure and Delivery Requirements for Copies of Appraisals and Other Written Valuations Under the Equal Credit Opportunity Act (Regulation B)

AGENCY: Bureau of Consumer Financial Protection.

ACTION: Final rule; official interpretations.

SUMMARY: The Bureau of Consumer Financial Protection (Bureau) is amending Regulation B, which implements the Equal Credit Opportunity Act (ECOA), and the Bureau's official interpretations of the regulation, which interpret and clarify the requirements of Regulation B. The final rule revises Regulation B to implement an ECOA amendment concerning appraisals and other valuations that was enacted as part of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). In general, the revisions to Regulation B require creditors to provide to applicants free copies of all appraisals and other written valuations developed in connection with an application for a loan to be secured by a first lien on a dwelling, and require creditors to notify applicants in writing that copies of appraisals will be provided to them promptly.

DATES: This final rule is effective January 18, 2014.

FOR FURTHER INFORMATION CONTACT: Owen Bonheimer, Counsel, or William W. Matchneer, Senior Counsel, Office of Regulations, at (202) 435–7000.

SUPPLEMENTARY INFORMATION:

I. Summary of the Final Rule

Congress amended ECOA section 701(e) to require creditors to provide applicants with a copy of appraisals and other written valuations developed in connection with certain mortgage transactions as a matter of course, rather than only providing copies of appraisals upon applicants' request as previously required. For the reasons discussed below, the Bureau is now adopting amendments to Regulation B in final form, generally as proposed. The final rule amends § 1002.14 of Regulation B to provide for the following in connection with applications for credit to be secured by a first lien on a dwelling:

- Require creditors to notify applicants within three business days of receiving an application of their right to receive a copy of appraisals developed.
- Require creditors to provide applicants a copy of each appraisal and other written valuation promptly upon its completion or three business days before consummation (for closed-end credit) or account opening (for open-end credit), whichever is earlier.
- Permit applicants to waive the timing requirement for providing these copies. However, applicants who waive the timing requirement must be given a copy of all appraisals and other written valuations at or prior to consummation or account opening, or, if the transaction is not consummated or the account is not opened, no later than 30 days after the creditor determines the transaction will not be consummated or the account will not be opened.
- Prohibit creditors from charging for the copy of appraisals and other written valuations, but permit creditors to charge applicants reasonable fees for the cost of the appraisals or other written valuations unless applicable law provides otherwise.

As discussed further in part VI, this final rule becomes effective on January 18, 2014. Accordingly, the final rule applies to mortgage transactions to be secured by a first lien on a dwelling for which the creditor receives an application on or after January 18, 2014.

II. Background

A. ECOA and Regulation B

ECOA [1] makes it unlawful for creditors to discriminate in any aspect of a credit transaction on the basis of sex, race, color, religion, national origin, marital status, or age (provided the applicant has the capacity to contract), or because all or part of an applicant's income derives from public assistance, or because the applicant has in good faith exercised any right under the Consumer Credit Protection Act. ECOA applies to consumer credit as well as to business and commercial credit except as provided in Regulation B, § 1002.3(a)–(d).

Prior to its amendment by the Dodd-Frank Act, section 701(e) of ECOA required creditors to provide credit applicants, upon written request, with copies of appraisal reports used in connection with their applications for a loan secured by residential real property. This provision was added to ECOA in 1991 as part of the Federal Deposit Insurance Corporation Improvement Act (FDICIA).[2] The Senate report on FDICIA suggests that one purpose of ECOA section 701(e) was to make it easier for loan applicants to determine whether a loan was denied due to a discriminatory appraisal.[3]

Section 1474 of the Dodd-Frank Act replaces the existing section 701(e) with a new provision that imposed several new requirements concerning appraisals as well as other valuations, as described below. The Act also transferred general rulemaking authority for ECOA from the Board of Governors of the Federal Reserve System (Board) to the Bureau on July 21, 2011.[4] Pursuant to the Dodd-Frank Act and ECOA, as amended, the Bureau published for public comment an interim final rule establishing a new Regulation B, 12 CFR part 1002, implementing ECOA (except with respect to persons excluded from the Bureau's rulemaking authority by section 1029 of the Dodd-Frank Act). 76 FR 79442 (Dec. 21, 2011). This interim final rule did not impose any new substantive obligations but did make technical and conforming changes to reflect the transfer of authority and certain other changes made by the Dodd-Frank Act. The Bureau's Regulation B took effect on December 30, 2011.

B. Dodd-Frank Act Amendments Concerning Appraisals and Other Valuations

Congress enacted the Dodd-Frank Act after a cycle of unprecedented expansion and contraction in the mortgage market sparked the most severe U.S. recession since the Great Depression.[5] The Dodd-Frank Act created the Bureau and consolidated various rulemaking and supervisory authorities in this new agency, including the authority to implement ECOA.[6] At the same time, Congress imposed new statutory requirements governing mortgage practices with the intent to restrict the practices that

[1] 15 U.S.C. 1691 *et seq.*

[2] Public Law 102–242, 105 Stat. 2236 (1991).

[3] For additional legislative history on the appraisal provision as originally added by the FDICIA, see S. Rept.167, 102nd Cong. (1991); S. Rept. 461, 101st Cong. (1990); 137 Cong. Rec. S2519 (daily ed. Feb. 28, 1991); 136 Cong. Rec. S14592, 14598–99 (daily ed. Oct. 5, 1990).

[4] Public Law 111–203, 124 Stat. 1376 (2010). The transfer of authority is further discussed in Part IV below.

[5] For more discussion of the mortgage market, the financial crisis, and mortgage origination generally, see the Bureau's 2012 TILA–RESPA Proposal, 77 FR 51116 (Aug. 23, 2012), *available at http://www.consumerfinance.gov/regulations/*.

[6] Sections 1011 and 1021 of title X of the Dodd-Frank Act, the ''Consumer Financial Protection Act,'' Public Law 111–203, sections 1001–1100H, codified at 12 U.S.C. 5491, 5511. The Consumer Financial Protection Act is substantially codified at 12 U.S.C. 5481–5603.

contributed to the crisis and to provide additional protections to consumers.

Sections 1471 through 1474 of the Dodd-Frank Act established a number of new requirements for appraisal and other valuation activities, including requirements relating to appraisal independence, appraisals for higher-risk mortgages, regulation of appraisal management companies, automated valuation models (AVMs), and providing copies of appraisals and other written valuations.[7] Many of the Dodd-Frank Act appraisal provisions are required to be implemented through joint rulemakings involving the Bureau and other Federal agencies. The amendment to ECOA section 701(e), however, does not require a joint rulemaking. As discussed below, the amendments to section 701(e) overlap with the disclosure and appraisal copy requirements of a Dodd-Frank Act amendment to the Truth in Lending Act (TILA) applicable to higher-risk mortgages. That Dodd-Frank Act amendment to TILA, which adds TILA section 129H, is required to be implemented through joint rulemaking. *See* TILA section 129H(b)(4)(A); 15 U.S.C. 1639h(b)(4)(A).

ECOA Requirements Relating to Appraisals and Other Valuations

Section 1474 of the Dodd-Frank Act[8] amended ECOA section 701(e) to require that creditors provide copies of all appraisals and other written valuations to loan applicants, in credit transactions to be secured by a first lien on a dwelling, at no additional cost and without requiring applicants to request such copies affirmatively. Amended ECOA section 701(e) generally provides that:

- A creditor shall furnish to an applicant a copy of any and all appraisals and other written valuations developed in connection with the applicant's application for a loan that is or would be secured by a first lien on a dwelling. The copy must be provided promptly upon completion, and in no case later than three days prior to closing of the loan, whether the creditor grants or denies the applicant's request for credit or the application is incomplete or withdrawn. However, the applicant may waive the timing requirement that copies of such appraisals or other valuations be provided three days prior to closing, except where otherwise required by law.
- The creditor shall provide a copy of each appraisal or other written valuation at no additional cost to the applicant, though the creditor may impose a reasonable fee on the applicant to reimburse the creditor for the cost of the appraisal.
- At the time of application, the creditor shall notify applicants in writing of the right to receive a copy of each appraisal and other written valuation under ECOA section 701(e).

Amended ECOA section 701(e)(6) defines the term ''valuation'' as including ''any estimate of the value of a dwelling developed in connection with a creditor's decision to provide credit, including those values developed pursuant to a policy of a government sponsored enterprise or by an automated valuation model, a broker price opinion, or other methodology or mechanism.''

Higher-Risk Mortgage Appraisal Requirements

On August 15, 2012, the Bureau—along with the Board, the Federal Deposit Insurance Corporation (FDIC), the Federal Housing Finance Agency (FHFA), the National Credit Union Administration (NCUA), and the Office of the Comptroller of the Currency (OCC)—jointly issued for public comment a proposal to implement new section 129H of TILA relating to appraisals for higher-risk mortgages (2012 Interagency Appraisals Proposal). The proposal was published in the **Federal Register** on September 5, 2012. *See* 77 FR 54722 (Sept. 5, 2012). TILA section 129H includes certain requirements that are similar to ECOA section 701(e). Under Section 129H(d), creditors must provide applicants, at least three days prior to closing, a copy of any appraisal prepared in connection with a higher-risk mortgage. 15 U.S.C. 1639h(c). Creditors also must provide applicants, at the time of the initial mortgage application, a statement that any appraisal prepared for the mortgage is for the creditor's sole use and that the consumer may choose to have a separate appraisal conducted at his or her own expense. *Id.* 1639h(d). Section 1471 of the Dodd-Frank Act defines the term ''higher-risk mortgage'' generally as a residential mortgage loan, other than a reverse mortgage, that is secured by a principal dwelling with an annual percentage rate (APR) that exceeds the average prime offer rate for a comparable transaction by specified percentages. *Id.* 1639h(f). To finalize the 2012 Interagency Appraisals Proposal described above, the inter-agency group is issuing a final rule under section 129H of TILA (2103 Interagency Appraisals Final Rule).

III. Summary of the Rulemaking Process

A. Pre-Proposal Testing and Outreach

The Bureau has conducted consumer testing relating to implementation of ECOA section 701(e) requirements in conjunction with its 2012 TILA–RESPA Proposal.[9] A more detailed discussion of the Bureau's overall testing and form design can be found in the report *Know Before You Owe: Evolution of the Integrated TILA–RESPA Disclosures,* which is available on the Bureau's Web site.[10]

In January 2011, the Bureau contracted with a communication, design, consumer testing, and research firm, Kleimann Communication Group, Inc. (Kleimann), which specializes in consumer financial disclosures. The Bureau and Kleimann developed a plan to conduct qualitative usability testing, consisting of one-on-one cognitive interviews, over several iterations of prototype integrated disclosure forms. Between January and May 2011, the Bureau and Kleimann worked collaboratively on developing a qualitative testing plan, and several prototype integrated forms for the disclosure to be provided in connection with a consumer's application (*i.e.,* a form integrating the RESPA good faith estimate and the early TILA disclosure).[11] The qualitative testing plan developed by the Bureau and Kleimann was unique with respect to qualitative testing performed by other

[7] *See* TILA sections 129E and 129H as established by Dodd-Frank Act sections 1471 and 1472, 15 U.S.C. 1639e and 1639h; sections 1124 and 1125 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) as established by Dodd-Frank Act sections 1473(f)(2), 12 U.S.C. 3353, and 1473(q), 12 U.S.C. 3354; and section 701(e) of ECOA as amended by Dodd-Frank Act section 1474, 15 U.S.C. 1691(e).

[8] Public Law 111–203, sec. 1474, 124 Stat. 1376 (2010).

[9] *See* 77 FR 51116 at 51313–14, 51427 (Aug. 23, 2012). On July 9, 2012, the Bureau issued for public comment a proposed rule and forms combining the TILA mortgage loan disclosures with the Real Estate Settlement Procedures Act (RESPA) Good Faith Estimate (GFE) and settlement statement required pursuant to Dodd-Frank Act section 1032(f) as well as sections 4(a) of RESPA and 105(b) of TILA, as amended by Dodd-Frank Act sections 1098 and 1100A, respectively (2012 TILA–RESPA Proposal). 12 U.S.C. 2603(a); 15 U.S.C. 1604(b).

[10] Kleimann Comm. Gp., Inc., *Know Before You Owe: Evolution of the Integrated TILA–RESPA Disclosures* (July 9, 2012), *available at http://files.consumerfinance.gov/f/201207_cfpb_report_tila-respa-testing.pdf.*

[11] This discussion is limited to testing of the disclosure to be provided in connection with a consumer's application, which is the portion of the testing relevant to the appraisal-related disclosure required under § 1002.14(a)(2). As discussed in the supplementary information to the 2012 RESPA-TILA Proposal, the Bureau and Kleimann also tested prototype designs for the integrated disclosure forms to be provided in connection with the closing of the mortgage loan and real estate transaction. *See* the Bureau's 2012 TILA-RESPA Proposal, *available at http://www.consumerfinance.gov/regulations/.*

federal agencies in that the Bureau planned to conduct qualitative testing with industry participants as well as consumers. Each round of qualitative testing included at least two industry participants, including lenders from several different types of depository (including credit unions) and nondepository institutions, mortgage brokers, and closing agents.

In addition, the Bureau launched an initiative to obtain public feedback on each round of prototype disclosures at the same time as it conducted the qualitative testing of the prototypes, which it titled ''Know Before You Owe.'' [12] This initiative consisted of publishing and obtaining feedback on the prototype designs through an interactive tool on the Bureau's Web site or through posting the prototypes to the Bureau's blog on its Web site and providing an opportunity for the public to email feedback directly to the Bureau. From May to October 2011, Kleimann and the Bureau conducted a series of five rounds of qualitative testing on revised iterations of integrated disclosure prototype forms. This testing was conducted in five different cities across different U.S. Census regions and divisions: Baltimore, Maryland; Los Angeles, California; Chicago, Illinois; Springfield, Massachusetts; and Albuquerque, New Mexico. After each round, Kleimann analyzed and reported to the Bureau on the results of the testing. Based on these results and feedback received from the Bureau's Know Before You Owe public outreach project, the Bureau revised the prototype disclosure forms for the next round of testing.

As part of the larger Know Before You Owe public outreach project, the Bureau tested two versions of the new appraisal-related disclosures required by both TILA section 129H and ECOA section 701(e).[13] The Bureau believed that it was important to test the TILA and ECOA appraisal-related disclosures together, in an integrated manner, to determine how to provide these overlapping but separate disclosures in a manner that would minimize consumer confusion and improve consumer comprehension. Testing of the first version showed that consumers tended to find the TILA and ECOA disclosures confusing when they were given together using the specific language set forth in the respective statutes.[14] Consumer comprehension improved when the Bureau developed a slightly longer plain language version that was designed to incorporate the elements of both statutes. Based on the results of that testing, the Bureau developed the following appraisal disclosure language: ''We may order an appraisal to determine the property's value and charge you for this appraisal. We will promptly give you a copy of any appraisal, even if your loan does not close. You can pay for an additional appraisal for your own use at your own cost.'' The Bureau included this language in the prototype form used in the final rounds of the testing process.

In addition, as part of the rulemaking process for this rule, as described in the proposal, 77 FR 53090, at 50400 n.39, 50402 n.48 (Aug. 21, 2012), the Bureau considered information obtained during pre-proposal outreach to industry regarding its practices in providing copies of written appraisals to applicants. This outreach was carried out in the context of the development of the 2012 Interagency Appraisals Proposal and involved a large bank, a trade group of smaller depository institutions, and an independent mortgage bank (IMB).

B. The Bureau's 2012 ECOA Proposal on Providing Copies of Appraisals and Other Written Valuations

The Bureau issued for public comment its proposal to amend Regulation B to implement the Dodd-Frank Act amendment to ECOA section 701(e) on August 15, 2012. The proposal was published in the **Federal Register** on August 21, 2012. 77 FR 50390 (Aug. 21, 2012). The Bureau proposed to amend Regulation B, § 1002.14(a)(1), to set forth a general requirement that creditors provide applicants for credit to be secured by a first lien on a dwelling with copies of all appraisals and other written valuations developed in connection with their applications. The Bureau further proposed timing requirements for providing such copies and standards governing any waiver of the timing requirements. The Bureau proposed to amend § 1002.14(a)(2) to require that a creditor provide a written disclosure of the applicant's right to receive a copy of such appraisals and other written valuations. As proposed, § 1002.14(a)(3) would have prohibited creditors from charging the applicants for providing a copy of appraisals and other written valuations, but would have permitted creditors to require applicants to pay a reasonable fee to reimburse the creditor for the cost of appraisals and other written valuations. The Bureau proposed in § 1002.14(a)(4) to clarify that the requirements of § 1002.14(a)(1) would apply regardless of whether credit is extended or denied, or if the application is incomplete or withdrawn. The Bureau proposed in § 1002.14(a)(5) to allow the copies of appraisals and other written valuations required by § 1002.14(a)(1) to be provided in electronic form. As is discussed in more detail below, proposed § 1002.14(b) would have defined certain terms used in § 1002.14(a).

C. Overview of Comments Received

The Bureau received 68 comments on the 2012 ECOA Proposal, primarily from creditors and their representatives. Most of the industry commenters generally supported the core elements of the proposal, while providing suggestions for exemptions, clarifications, or changes to particular elements of the proposal. Comment letters also were submitted by a group advocating for the use of plain language, and on behalf of appraisers, government-sponsored enterprises (GSEs), and real estate agents, as well as an affordable housing advocacy group. The affordable housing advocacy group commenter generally supported the proposal and suggested changes to strengthen consumer protections. The plain language group commenter suggested changes to make the rule easier to understand. Most of the remaining commenters generally supported the rule but suggested clarifications and changes to particular elements of the proposal. The comments are discussed in more detail in the section-by-section analysis below.

D. Other Rulemakings

In addition to this final rule and the 2013 Interagency Appraisals Final Rule described above, the Bureau currently is adopting several other final rules and issuing one proposal, all relating to mortgage credit to implement requirements of title XIV of the Dodd-Frank Act. Each of the final rules follows a proposal issued in 2011 by the Board or in 2012 by the Bureau. Collectively, these proposed and final rules are referred to as the Title XIV Rulemakings.

- *Ability to Repay:* The Bureau is finalizing a rule, following a May 2011 proposal issued by the Board (Board's 2011 ATR Proposal),[15] to implement provisions of the Dodd-Frank Act (1) requiring creditors to determine that a consumer has a reasonable ability to repay covered mortgage loans and

[12] *See http://www.consumerfinance.gov/knowbeforeyouowe.*

[13] Kleimann Comm. Gp., Inc., *Know Before You Owe: Evolution of the Integrated TILA–RESPA Disclosures* 254–256 (July 9, 2012), *available at http://files.consumerfinance.gov/f/201207_cfpb_report_tila-respa-testing.pdf.*

[14] *Id.*

[15] 76 FR 27390 (May 11, 2011).

establishing standards for compliance, such as by making a ''qualified mortgage,'' and (2) establishing certain limitations on prepayment penalties, pursuant to TILA section 129C as established by Dodd-Frank Act sections 1411, 1412, and 1414. 15 U.S.C. 1639c. The Bureau's final rule is referred to as the 2013 ATR Final Rule. Simultaneously with the 2013 ATR Final Rule, the Bureau is issuing a proposal to amend the final rule implementing the ability-to-repay requirements, including by the addition of exemptions for certain nonprofit creditors and certain homeownership stabilization programs and a definition of a ''qualified mortgage'' for certain loans made and held in portfolio by small creditors (2013 ATR Concurrent Proposal). The Bureau expects to act on the 2013 ATR Concurrent Proposal on an expedited basis, so that any exceptions or adjustments to the 2013 ATR Final Rule can take effect simultaneously with that rule.

• *Escrows:* The Bureau is finalizing a rule, following a March 2011 proposal issued by the Board (Board's 2011 Escrows Proposal),[16] to implement certain provisions of the Dodd-Frank Act expanding on existing rules that require escrow accounts to be established for higher-priced mortgage loans and creating an exemption for certain loans held by creditors operating predominantly in rural or underserved areas, pursuant to TILA section 129D as established by Dodd-Frank Act section 1461. 15 U.S.C. 1639d. The Bureau's final rule is referred to as the 2013 Escrows Final Rule.

• *HOEPA:* Following its July 2012 proposal (2012 HOEPA Proposal),[17] the Bureau is issuing a final rule to implement Dodd-Frank Act requirements expanding protections for ''high-cost mortgages'' under the Homeownership and Equity Protection Act (HOEPA), pursuant to TILA sections 103(bb) and 129, as amended by Dodd-Frank Act sections 1431 through 1433. 15 U.S.C. 1602(bb) and 1639. The Bureau also is finalizing rules to implement certain title XIV requirements concerning homeownership counseling, including a requirement that lenders provide lists of homeownership counselors to applicants for federally-related mortgage loans, pursuant to RESPA section 5(c), as amended by Dodd-Frank Act section 1450. 12 U.S.C. 2604(c). The Bureau's final rule is referred to as the 2013 HOEPA Final Rule.

• *Servicing:* Following its August 2012 proposals (2012 RESPA Servicing Proposal and 2012 TILA Servicing Proposal),[18] the Bureau is adopting final rules to implement Dodd-Frank Act requirements regarding force-placed insurance, error resolution, information requests, and payment crediting, as well as requirements for mortgage loan periodic statements and adjustable-rate mortgage reset disclosures, pursuant to section 6 of RESPA and sections 128, 128A, 129F, and 129G of TILA, as amended or established by Dodd-Frank Act sections 1418, 1420, 1463, and 1464. 12 U.S.C. 2605; 15 U.S.C. 1638, 1638a, 1639f, and 1639g. The Bureau also is finalizing rules on early intervention for troubled and delinquent borrowers, and loss mitigation procedures, pursuant to the Bureau's authority under section 6 of RESPA, as amended by Dodd-Frank Act section 1463, to establish obligations for mortgage servicers that it finds to be appropriate to carry out the consumer protection purposes of RESPA, and its authority under section 19(a) of RESPA to prescribe rules necessary to achieve the purposes of RESPA. The Bureau's final rule under RESPA with respect to mortgage servicing also establishes requirements for general servicing standards policies and procedures and continuity of contact pursuant to its authority under section 19(a) of RESPA. The Bureau's final rules are referred to as the 2013 RESPA Servicing Final Rule and the 2013 TILA Servicing Final Rule, respectively.

• *Loan Originator Compensation:* Following its August 2012 proposal (2012 Loan Originator Proposal),[19] the Bureau is issuing a final rule to implement provisions of the Dodd-Frank Act requiring certain creditors and loan originators to meet certain duties of care, including qualification requirements; requiring the establishment of certain compliance procedures by depository institutions; prohibiting loan originators, creditors, and the affiliates of both from receiving compensation in various forms (including based on the terms of the transaction) and from sources other than the consumer, with specified exceptions; and establishing restrictions on mandatory arbitration and financing of single-premium credit insurance, pursuant to TILA sections 129B and 129C as established by Dodd-Frank Act sections 1402, 1403, and 1414(a). 15 U.S.C. 1639b, 1639c. The Bureau's final rule is referred to as the 2013 Loan Originator Final Rule.

The Bureau is not at this time finalizing proposals concerning various disclosure requirements that were added by title XIV of the Dodd-Frank Act, integration of mortgage disclosures under TILA and RESPA, or a simpler, more inclusive definition of the finance charge for purposes of disclosures for closed-end mortgage transactions under Regulation Z. The Bureau expects to finalize these proposals and to consider whether to adjust regulatory thresholds under the Title XIV Rulemakings in connection with any change in the calculation of the finance charge later in 2013, after it has completed quantitative testing, and any additional qualitative testing deemed appropriate, of the forms that it proposed in July 2012 to combine TILA mortgage disclosures with the good faith estimate (RESPA GFE) and settlement statement (RESPA settlement statement) required under RESPA, pursuant to Dodd-Frank Act section 1032(f) and sections 4(a) of RESPA and 105(b) of TILA, as amended by Dodd-Frank Act sections 1098 and 1100A, respectively (2012 TILA–RESPA Proposal).[20] Accordingly, the Bureau already has issued a final rule delaying implementation of various affected title XIV disclosure provisions.[21] The Bureau's approach to coordinating the implementation of the Title XIV Rulemakings is discussed below.

Coordinated Implementation of Title XIV Rulemakings

As noted in all of its foregoing proposals, the Bureau regards each of the Title XIV Rulemakings as affecting aspects of the mortgage industry and its regulations. Accordingly, as noted in its proposals, the Bureau is coordinating carefully the Title XIV Rulemakings, particularly with respect to their effective dates. The Dodd-Frank Act requirements to be implemented by the Title XIV Rulemakings generally will take effect on January 21, 2013, unless final rules implementing those requirements are issued on or before that date and provide for a different effective date. *See* Dodd-Frank Act section 1400(c), 15 U.S.C. 1601 note. In addition, some of the Title XIV Rulemakings are to take effect no later than one year after they are issued. *Id.*

The comments on the appropriate implementation date for this final rule are discussed in detail below in part VI of this notice. In general, however, consumer advocates requested that the Bureau put the protections in the Title

[16] 76 FR 11598 (Mar. 2, 2011).

[17] 77 FR 49090 (Aug. 15,2012).

[18] 77 FR 57200 (Sept. 17, 2012) (RESPA); 77 FR 57318 (Sept. 17, 2012) (TILA).

[19] 77 FR 55272 (Sept. 7, 2012).

[20] 77 FR 51116 (Aug. 23, 2012).

[21] 77 FR 70105 (Nov. 23, 2012).

XIV Rulemakings into effect as soon as practicable. In contrast, the Bureau received some industry comments indicating that implementing so many new requirements at the same time would create a significant cumulative burden for creditors. In addition, many commenters also acknowledged the advantages of implementing multiple revisions to the regulations in a coordinated fashion.[22] Thus, a tension exists between coordinating the adoption of the Title XIV Rulemakings and facilitating industry's implementation of such a large set of new requirements. Some have suggested that the Bureau resolve this tension by adopting a sequenced implementation, while others have requested that the Bureau simply provide a longer implementation period for all of the final rules.

The Bureau recognizes that many of the new provisions will require creditors to make changes to automated systems and, further, that most administrators of large systems are reluctant to make too many changes to their systems at once. At the same time, however, the Bureau notes that the Dodd-Frank Act established virtually all of these changes to institutions' compliance responsibilities, and contemplated that they be implemented in a relatively short period of time. And, as already noted, the extent of interaction among many of the Title XIV Rulemakings necessitates that many of their provisions take effect together. Finally, notwithstanding commenters' expressed concerns for cumulative burden, the Bureau expects that creditors actually may realize some efficiencies from adapting their systems for compliance with multiple new, closely-related requirements at once, especially if given sufficient overall time to do so.

Accordingly, the Bureau is requiring that, as a general matter, creditors and other affected persons begin complying with the final rules on January 10, 2014. As noted above, section 1400(c) of the Dodd-Frank Act requires that some provisions of the Title XIV Rulemakings take effect no later than one year after the Bureau issues them. Accordingly, the Bureau is establishing January 10, 2014, one year after issuance of the Bureau's 2013 ATR, Escrows, and HOEPA Final Rules (*i.e.,* the earliest of the title XIV final rules), as the baseline effective date for most of the Title XIV Rulemakings. The Bureau believes that, on balance, this approach will facilitate the implementation of the rules' overlapping provisions, while also affording creditors sufficient time to implement the more complex or resource-intensive new requirements. As discussed in part VI below, however, the effective date of this final rule is January 18, 2014, to align with the effective date of the 2013 Interagency Appraisals Final Rule.

The Bureau has identified certain rulemakings or selected aspects thereof, however, that do not present significant implementation burdens for industry. Accordingly, the Bureau is setting earlier effective dates for those final rules or certain aspects thereof, as applicable. Those effective dates are set forth and explained in the **Federal Register** notices for those final rules.

IV. Legal Authority

The final rule was issued on January 18, 2013, in accordance with 12 CFR 1074.1. The Bureau issued this final rule pursuant to its authority under ECOA and the Dodd-Frank Act. On July 21, 2011, section 1061 of the Dodd-Frank Act transferred to the Bureau all of the ''consumer financial protection functions'' previously vested in certain other Federal agencies, including the Board.[23] The term ''consumer financial protection functions'' is defined to include ''all authority to prescribe rules or issue orders or guidelines pursuant to any Federal consumer financial law, including performing appropriate functions to promulgate and review such rules, orders, and guidelines.'' [24] ECOA is a Federal consumer financial law.[25] Accordingly, the Bureau has authority to issue regulations pursuant to ECOA.

Section 703(a) of ECOA authorizes the Bureau to prescribe regulations to carry out the purposes of ECOA. Section 703(a) further states that such regulations may contain—but are not limited to—such classifications, differentiation, or other provision, and may provide for such adjustments and exceptions for any class of transactions as, in the judgment of the Bureau, are necessary or proper to effectuate the purposes of ECOA, to prevent circumvention or evasion thereof, or to facilitate or substantiate compliance. 15 U.S.C. 1691b(a).

Section 1022(b)(1) of the Dodd-Frank Act authorizes the Bureau to prescribe rules ''as may be necessary or appropriate to enable the Bureau to administer and carry out the purposes and objectives of the Federal consumer financial laws, and to prevent evasions thereof[.]'' 12 U.S.C. 5512(b)(1). ECOA and title X of the Dodd-Frank Act are Federal consumer financial laws. Accordingly, the Bureau is exercising its authority under Dodd-Frank Act section 1022(b)(1) to prescribe rules that carry out the purposes and objectives of ECOA and title X and prevent evasion of those laws.

Section 1405(b) of the Dodd-Frank Act provides that, ''[n]otwithstanding any other provision of [title XIV of the Dodd-Frank Act], in order to improve consumer awareness and understanding of transactions involving residential mortgage loans through the use of disclosures, the [Bureau] may, by rule, exempt from or modify disclosure requirements, in whole or in part, for any class of residential mortgage loans if the [Bureau] determines that such exemption or modification is in the interest of consumers and in the public interest.'' 15 U.S.C. 1601 note. Section 1401 of the Dodd-Frank Act, which amended TILA section 103(cc), 15 U.S.C. 1602(cc), generally defines residential mortgage loan as any consumer credit transaction that is secured by a mortgage on a dwelling or on residential real property that includes a dwelling other than an open-end credit plan or an extension of credit secured by a consumer's interest in a timeshare plan. Notably, the authority granted by section 1405(b) applies to ''disclosure requirements'' generally, and is not limited to a specific statute or statutes.

V. Section-by-Section Analysis

Section 1002.14 Rules on Providing Copies of Appraisals and Other Written Valuations

Overview

Public comments generally. Many commenters offered general support for the proposed rule, with some

[22] Of the several final rules being adopted under the Title XIV Rulemakings, six entail amendments to Regulation Z, with the only exceptions being the 2013 RESPA Servicing Final Rule (Regulation X) and the 2013 ECOA Appraisals Final Rule (Regulation B); the 2013 HOEPA Final Rule also amends Regulation X, in addition to Regulation Z. The six Regulation Z final rules involve numerous instances of intersecting provisions, either by cross-references to each other's provisions or by adopting parallel provisions. Thus, adopting some of those amendments without also adopting certain other, closely-related provisions would create significant technical issues, *e.g.,* new provisions containing cross-references to other provisions that do not yet exist, which could undermine the ability of creditors and other parties subject to the rules to understand their obligations and implement appropriate systems changes in an integrated and efficient manner.

[23] Public Law 111–203, sec. 1061(b)(7), 124 Stat. 1376; 12 U.S.C. 5581(b)(7).

[24] 12 U.S.C. 5581(a)(1).

[25] Dodd-Frank Act section 1002(14), 12 U.S.C. 5481(14) (defining ''Federal consumer financial law'' to include the ''enumerated consumer laws'' and the provisions of title X of the Dodd-Frank Act); Dodd-Frank Act section 1002(12), 12 U.S.C. 5481(12) (defining ''enumerated consumer laws'' to include ECOA).

comments, for example by a large trade association for real estate brokers and agents, offering strong support for its potential to educate and inform consumers about appraisals and other valuations and their role in the real estate transaction. Most of the industry commenters generally supported the proposal and provided numerous suggestions for clarifications or changes to particular elements of the proposal, which are discussed in the corresponding sections below. Some industry commenters including community banks and other lending institutions, however, opposed the proposal. These comments stated, for example, that the mortgage credit industry cannot keep up with the all the regulations being issued under the Dodd-Frank Act and that rules requiring creditors to provide copies of appraisals are already in place.

Discussion. As discussed above, the Dodd-Frank Act amendments to ECOA section 701(e) will take effect 18 months after the designated transfer date under the Dodd-Frank Act unless final rules implementing section 701(e) are issued on or before that date and provide for a different effective date. For that reason, the Bureau believes that, rather than adding burden to industry, this final regulation will relieve industry of uncertainty and potential liability risk that would likely result from ECOA section 701(e) taking effect without an implementing regulation. Furthermore, by issuing this final rule the Bureau is able to provide industry with additional time to develop new policies, train employees, and make system changes to implement the rule's requirements that would not be available if the statute takes effect in January 2013.

4(d) General Rules on Providing Disclosure in Electronic Form

As discussed in the section-by-section analysis relating to § 1002.14(a)(5), the Bureau is updating the cross-reference in § 1002.4(d) to § 1002.14, to reflect that the new disclosure requirement is cited as § 1002.14(a)(2), rather than § 1002.14(a)(2)(i). This change will ensure that electronic disclosure standards in Regulation B apply to the new notice required by § 1002.14(a)(2) to the same extent as they have applied to the existing notice required by § 1002.14(a)(2)(i) that the new notice will replace.

14(a) Providing Copies of Appraisals and Other Written Valuations

14(a)(1) In General

ECOA section 701(e)(1) requires a creditor to provide an applicant a copy of all appraisals and other written valuations developed in connection with an application for credit that is to be secured by a first lien on a dwelling. This requirement replaced the previous requirement in section 701(e) to provide copies of appraisal reports upon request of the applicant for a loan secured by a lien on a dwelling. Accordingly, the Bureau proposed to revise § 1002.14(a)(1) in two important ways: to specify the types of materials that must be provided to consumers (i.e., copies of appraisals and other written valuations developed in connection with the application), and to specify the types of transactions for which these copies must be provided (i.e., applications for credit to be secured by a first lien on a dwelling).

First, consistent with new ECOA section 701(e)(1), the Bureau proposed broadening the scope of the valuation materials for which copies must be provided to applicants under § 1002.14(a)(1) to include copies of ''all written appraisals and valuations developed.'' The Bureau further proposed new comment 14(a)(1)–3 to clarify that for purposes of § 1002.14, a ''written'' appraisal or other valuation would include, without limitation, an appraisal or valuation received or developed by the creditor in any of the following manners: in paper form (hard copy); electronically, such as by CD or email; or by any other similar media. In addition, the proposed comment would have clarified that creditors should look to § 1002.14(a)(5) regarding the provision of copies of appraisals and other written valuations to applicants via electronic means.

Second, the Dodd-Frank Act amendments to ECOA section 701(e) also narrowed the types of transactions that are covered to ''first lien'' transactions. Accordingly, the Bureau proposed revising § 1002.14(a)(1) to add the word ''first'' to narrow the scope of the final rule to cover only loans to be secured by a first lien on a dwelling.

The Bureau also proposed changes to the Regulation B commentary further clarifying the types of transactions subject to the requirement to deliver copies of appraisals and other written valuations. Prior to this final rule, comments 14(a)–1 and 2 had clarified that Regulation B appraisal delivery requirements applied to credit for business purposes and to renewals of credit secured by a dwelling. The Bureau proposed generally retaining these comments (renumbered as comments 14(a)(1)–1 and 2), with several conforming and technical changes. The Bureau proposed comment 14(a)(1)–1 to clarify that § 1002.14(a)(1) covers applications for credit to be secured by a first lien on a dwelling, as the term ''dwelling'' is defined in § 1002.14(b)(2), whether the credit is business credit (*see* § 1002.2(g)) or consumer credit (*see* § 1002.2(h)). The Bureau also proposed comment 14(a)(1)–2 to clarify that § 1002.14(a)(1) applies when an applicant requests the renewal of an existing extension of credit and the creditor develops a new appraisal or other written valuation. Consequently, the Bureau proposed that this comment clarify that § 1002.14(a) does not apply when a creditor uses the appraisals or other valuations that were previously developed in connection with the prior extension of credit in order to evaluate the renewal request.

Public comment. Many commenters provided suggestions on which types of documents would qualify as appraisals or other written valuations copies of which must be provided to applicants.

A significant number of industry commenters urged the Bureau to require creditors to provide only ''final'' versions of appraisals and other written valuations, to prevent uncertainty over whether creditors would be required to provide copies of drafts or preliminary versions of these documents. Commenters also suggested this clarification would help to reduce the volume of information that must be provided to and received by applicants, thereby reducing burden on creditors and preventing consumer confusion.

Several industry commenters asked the Bureau to clarify that ECOA only requires providing copies of appraisals or other written valuations that are actually performed. In addition, a few industry commenters suggested that the Bureau require providing copies of only those appraisals and other written valuations that are used or relied upon by the creditor in making the credit decision. This narrower focus was viewed as more in line with the purpose of ECOA. One commenter requested that creditors should not be required to provide a copy of an appraisal or other written valuation that is ''materially deficient,'' as it could confuse the consumer.

Some industry commenters expressed a general concern over liability risks raised by the proposed requirement to provide copies of appraisals and other written valuations. These commenters suggested that providing these copies to applicants could create liability risks for creditors and preparers. Some creditors and a creditor trade association expressed concern that applicants might view valuations that lenders conduct in-house, without commissioning an appraisal, as warranting the value of the

home. Two creditors and a creditor association in one state expressed concern over the potential for lender liability to carry over to investors under an assignee liability theory, which could reduce access to credit by reducing investor demand. Other industry commenters suggested that applicants might seek to hold an appraiser liable for the applicant's reliance upon the appraisal in entering into a transaction, particularly if the appraiser lists, or is required to list, the applicant as an ''intended user'' of the appraisal under the Uniform Standards of Professional Appraisal Practices (USPAP). Some of these commenters raised these concerns over potential liability as part of an overall concern with the potential burden of the regulation, and some urged the Bureau to include provisions in the final rule protecting creditors and preparers of appraisals and other valuations against liability.

A number of commenters also urged the Bureau to exclude certain types of transactions from the scope of the final rule. Several industry group commenters requested that the Bureau exempt loan modifications, loss mitigation, short sales, and deed-in-lieu transactions from the rule's requirements altogether. These commenters suggested that these transactions did not involve an ''application'' by the consumer for an ''extension of credit'' within the meaning of ECOA. They also argued that applying the rule to loss mitigation and other foreclosure alternatives would increase the costs of these transactions and decrease their availability to consumers. One industry commenter also suggested that the Bureau clarify that a loan modification did not fit within the type of transaction the rule would cover, because a modification does not lead to ''consummation'' of the loan.

In addition, an industry commenter requested clarification on whether the rule applies to an annual renewal clause under which a creditor makes a unilateral decision each year whether or not to renew a line of credit. Another industry trade association requested that the final rule exclude temporary loans, such as bridge or construction loans, which it argued are treated specially under other statutes such as RESPA and TILA. For construction loans, this commenter also asserted that applicants are more interested in receiving copies of valuations when the permanent financing begins, after the construction is complete and therefore factored into the valuation.

One commenter suggested that the rule should cover second liens to protect consumers in these transactions. This commenter asserted second lien transactions generally carry higher risk than first lien transactions, and therefore are even more worthy of the protections in the rule.

Discussion. The final rule adopts the language in § 1002.14(a)(1) discussed above as proposed, with a minor clarification. To clarify that an appraisal is intended to be classified as a type of ''valuation'' under the final rule, and to clarify that the rule applies to written valuations, the final rule uniformly adopts the phrases ''appraisals and other written valuations'' and ''appraisals or other written valuations.'' This usage also aligns with the use of the term ''valuation'' to include appraisals in recent amendments to Regulation Z, § 1026.42(b)(3), to implement section 129E of TILA. *See* 75 FR 66554, 66558 (Oct. 28, 2010) (adopting term ''valuation'').

To provide guidance on § 1002.14(a)(1), the final rule also adopts comments 14(a)(1)–1 through 3 as proposed, with an additional clarification in comment 14(a)(1)–1 relating to waiver (*see* discussion of waiver further below), and adopts an additional comment 14(a)(1)–7.[26]

The Bureau considered comments seeking clarification that the final rule does not require lenders to conduct appraisals or other written valuations. The Bureau does not believe, however, that this clarification is needed in the final rule or its commentary. On its face, section 701(e) of ECOA requires disclosure of copies of the appraisals and other written valuations that are developed in connection with an application. Neither ECOA section 701(e) nor the final rule requires that lenders must obtain appraisals or other written valuations.

The final rule also retains the language from the proposed rule—''developed in connection with an application for credit''—for determining which appraisals and other written valuations must be disclosed. Prior to the Dodd-Frank Act, ECOA section 701(e) referred to appraisals that were ''used'' in connection with the application. Had Congress intended to maintain that scope, it could have continued to use that term; instead, Congress referred to appraisals and other valuations that are ''developed'' in connection with the application, without necessarily requiring that they ultimately be ''used.'' The Bureau assumes this difference in terms reflects a deliberate wording choice by Congress, and the Bureau does not believe consumer protection will be enhanced by adjusting the statutory terminology. If an appraisal or other written valuation is ''developed in connection with'' an application, then the applicant may benefit from receiving a copy, even if the creditor does not to use the valuation. Some commenters expressed concern that applicants could mistakenly believe that such a valuation was ''used'' by the creditor. However, there is nothing in the final rule that prohibits creditors from providing information to applicants concerning whether a particular valuation was used.[27]

As noted above, some commenters stated a concern that providing copies of appraisals and other written valuations to applicants could result in liability issues for creditors and preparers of appraisals or other written valuations. Industry commenters noted questions or concerns over whether creditors would be deemed to have warranted home values contained in their internal valuations provided to applicants, and on whether consumers would assert legal claims based upon their reliance on appraisals in deciding whether to enter into transactions. The commenters do not appear to be raising concerns over liability under ECOA section 701(e) itself. On its face, section 701(e) concerns providing copies of certain materials and providing a disclosure. It does not specify the content of valuations or otherwise supply standards regarding what they should contain.[28] Moreover, ECOA has long required creditors to provide copies of appraisals upon request, and creditors routinely provide copies of appraisals for first lien loans including under GSE requirements. The commenters have not explained how requiring that copies of appraisals and other written valuations be provided as a matter of course increases creditors' exposure to liability under legal standards other than ECOA. In any event, as for legal standards other than those contained in ECOA, it is unclear what authority the Bureau would have to limit remedies arising from a creditor's providing copies of appraisals or other written valuations.[29]

[26] Other comments on § 1002.14(a)(1) relate to timing and waiver, and are discussed further below.

[27] Other industry commenters suggested that consumers would not benefit from receiving copies of valuations that were not used, and which may contain errors or even material deficiencies. The statute does not distinguish, however, between valuations that are used and those that are not used.

[28] Congress has spelled out the conduct that gives rise to liability under ECOA. 15 U.S.C. 1691e. Creditors that ''fail[] to comply with any requirement imposed under [ECOA] shall be liable to the aggrieved applicant.'' 15 U.S.C. 1691e(a).

[29] As to whether USPAP will require that appraisals list applicants as intended users of

With regard to the types of transactions that are covered by the final rule, the Bureau considered industry comments seeking clarification on whether loss mitigation activities, such as loan modifications, short sales, and deed-in-lieu transactions, are covered. These comments implicate provisions of ECOA and Regulation B that turn on whether there is an ''applicant'' or ''application'' for an ''extension of credit.'' [30] While some loan modifications can be subject to the provisions of Regulation B,[31] including the existing § 1002.14 disclosure-upon-request regime, there is variation between different types of loss mitigation programs; the particulars of the program at issue are important to understand in evaluating whether there is an application or applicant for an extension of credit within the meaning of Regulation B. Accordingly, the Bureau believes that questions on coverage of these types of transactions are best addressed with reference to the existing provisions of Regulation B.[32] To the extent a loss mitigation transaction is covered by Regulation B, the transaction is covered by the final rule, including its requirement of providing copies of appraisals and other written valuations. Consumers generally will benefit from receiving information about the value of their dwelling, both in the context of making a decision about the loss mitigation transaction and also in detecting potential discrimination, consistent with the purposes of ECOA. The Bureau believes these benefits outweigh the cost to the creditor of providing copies of documentation that the creditor already has received. For the reasons discussed in the Bureau's analysis under section 1022(b) below, the Bureau believes the per-loan cost of providing copies of these materials is modest, and they will often be provided in electronic form. The Bureau is therefore not exercising its exception authority to exempt loss mitigation transactions from § 1002.14 if those transactions would otherwise be covered by Regulation B.[33]

While the Bureau has considered the comment that the final rule should apply to second lien transactions because they are higher risk, it is not expanding the scope of the final rule to include second liens because such an expansion would be inconsistent with the plain meaning of section 701(e). The Bureau notes that the Dodd-Frank Act specifically limited the scope of ECOA section 701(e) to ''first liens,'' while applying the overlapping requirements under section 129H of TILA to certain subordinate lien loans that meet the definition of ''higher risk mortgage.'' The commenters have not presented data or other specific information warranting a departure from the plain language of ECOA section 701(e).

The final rule maintains comment 14(a)(1)–2, pertaining to credit renewals, with minor changes for consistency and clarity. Comment 14(a)(1)–2 clarifies that creditors must provide copies of appraisals or other written valuations prepared in connection with credit renewals requested by the applicant. Whether an applicant has requested a credit renewal, and when such an application is received for purposes of the timing requirements under § 1002.14(a)(2), depend on the facts and circumstances of an individual transaction. The remaining part of comment 14(a)(1)–2, clarifying that the rule does not apply to the use of an appraisal or other written valuation that was developed for a prior extension of credit, is adopted as proposed. Because the creditor in a prior transaction covered by the final rule would already have been required to provide a copy of an appraisal or other written valuation to the applicant, requiring the creditor in the subsequent transaction to provide another copy of that appraisal or other written valuation would be duplicative.[34] The Bureau is therefore finalizing comment 14(a)(1)–2 largely as proposed.

In response to industry comments, the Bureau has added new comment 14(a)(1)–7, which clarifies what copies must be provided in the event there are multiple versions of an appraisal or other written valuation. The comment clarifies that, if a creditor receives multiple versions of a particular appraisal or other written valuation, then the creditor is required to provide a copy of only the latest version received by the creditor. (*See also* the discussion of comment 14(a)(1)–4 below concerning application of the timing requirements in common situations where there are multiple versions of a particular appraisal or other written valuation.) The Bureau believes this comment is consistent with the language of ECOA section 701(e)(1) requiring copies of appraisals and other valuations to be provided promptly upon ''completion.'' The ''latest version received'' rule thus clarifies that when creditors have multiple versions of a particular appraisal or valuation, they are only required to provide the latest version. The Bureau believes that this guidance will help avoid placing unwarranted burden on creditors and overloading consumers with multiple drafts of a particular appraisal or other written valuation.

The Bureau notes, however, that the separate requirements of § 1002.14(a)(1) for the timing of providing copies to applicants will still apply. The application of the timing requirements to situations in which there are multiple versions of a particular valuation is further discussed below.

Comment 14(a)(1)–7 also clarifies that if a creditor provides a version of an appraisal or other written valuation that is later superseded, then the creditor still must provide the latest version. While the Bureau recognizes that this guidance could result in instances in which consumers receive multiple versions of a particular appraisal or other written valuation, it does not believe that this result can be avoided given the statutory requirements.

written appraisal reports, the Bureau believes this is a question that arises under USPAP and not ECOA; thus it is a matter for appraisers to determine pursuant to USPAP, and for the Appraisal Standards Board, which is charged with developing, interpreting, and amending USPAP.

[30] *See* 12 CFR 1002.2(e)–(f), (j) and (q).

[31] In the context of interpreting the requirement of Regulation B that there be a notice of an adverse action on an application, for example, the Federal Reserve Board Consumer Affairs Letter CA 09–13 (Dec. 4, 2009), noted that loan modifications can involve an ''application'' for an ''extension of credit'' within the meaning of Regulation B. *See* Consumer Affairs Letter CA 09–13, *Mortgage Loan Modification and Regulation B's Adverse Action Requirement* (2009), *available at http://www.federalreserve.gov/boarddocs/caletters/2009/0913/caltr0913.htm*. The Board determined that certain transactions under the U.S. Department of Treasury's Making Home Affordable Modification Program (HAMP) then in place did involve applications for extension of credit within the meaning of Regulation B. Guidance issued by the Board prior to the transfer of ECOA rulemaking authority to the Bureau will be applied by the Bureau absent further action. 76 FR at 43570 (July 21, 2011).

[32] Similarly, questions about the rule's coverage of temporary loans, such as bridge or construction loans, and renewals of credit, relate to the overall scope of Regulation B. The final rule is not intended to address whether these loans are subject to ECOA in the first place. If a temporary loan or a renewal is subject to ECOA, and an appraisal or other written valuation is developed for that loan, then the applicant has a right to receive a copy under the final rule. This approach is consistent with existing comment 14(a)(1)–2 concerning the application of § 1002.14 to renewals, which is maintained in the final rule.

[33] With respect to the comment suggesting that ''consummation'' is not necessarily occurring in the loan modification context, the Bureau is not persuaded that this is necessarily the case. The term ''consummation'' in Regulation Z is defined as the time the consumer becomes ''contractually obligated on the credit transaction.'' A loan modification can occur contractually, and take effect on a date certain.

[34] To the extent that an appraisal or other written valuation is developed in connection with an application received before January 18, 2014, it would not be subject to the final rule.

Comment 14(a)(1)–7 further clarifies that a copy of at least one version of each appraisal or other written valuation must be provided. The Bureau believes this comment is needed to ensure compliance with the statutory requirement that the applicant receive a copy of ''any and all'' appraisals or other written valuations ''developed'' in connection with an application. A rule requiring only ''final'' versions to be provided would not be consistent with the statutory requirement, because it would allow creditors to withhold a valuation that they determine is a draft or preliminary, even if they never receive a later version. The statute does not distinguish between valuations that are preliminary and those that are final or valuations that the creditor chooses to rely on and those it does not.

Additionally, the Bureau does not believe that such a rule would be consistent with the purposes of ECOA's requirement regarding furnishing copies of appraisals and other written valuations. The chief purpose of this provision is to promote transparency regarding the loan process to assist applicants in determining whether they may be the victims of discrimination. This purpose would be frustrated if creditors could subjectively determine which valuations to provide. Accordingly, comment 14(a)(1)–7 clarifies that when there is only one version of a particular appraisal or other written valuation, a copy must be provided to the applicant regardless of whether the creditor relied on it or viewed it as being preliminary.

Timing and Waiver

ECOA section 701(e)(1), requires that creditors provide copies of each appraisal or other written valuation promptly upon completion, but in no case later than three days prior to the closing of the loan. Accordingly, proposed § 1002.14(a)(1) stated that a creditor must provide a copy of each appraisal or other written valuation subject to § 1002.14(a)(1) promptly (generally within 30 days of receipt by the creditor), but not later than three business days prior to consummation of the transaction, whichever is first to occur.[35] The reference to providing the copy generally within a 30-day time frame was proposed to maintain consistency with the existing requirements of § 1002.14(a)(2)(ii).

ECOA section 701(e)(2) provides that an applicant may waive the three-day requirement provided in ECOA section 701(e)(1), except where otherwise required by law. Accordingly, proposed § 1002.14(a)(1) would have provided that, notwithstanding the other requirements in § 1002.14(a)(1), an applicant may waive the timing requirement in the proposal to receive a copy of an appraisal or other written valuation three business days prior to consummation and agree to receive the copy at or before consummation, except as otherwise prohibited by law. As discussed in the proposal, the Bureau did not propose that such waivers extend to the requirement that copies of appraisals and other written valuations be provided in the case of an application that is withdrawn, incomplete, or denied. The Bureau also proposed a new comment 14(a)(1)–4 that would clarify that waivers under § 1002.14(a)(1) are permitted if the applicant makes an affirmative oral or written statement (which can be made by any one applicant in the case of a multiple-applicant transaction) and if the creditor provides the copies of all appraisals and other written valuations at or before consummation.

Public comment. Some commenters addressed certain aspects of the timing requirement, including the waiver provision.[36] A few commenters suggested shortening the proposed general 30-day time limit, to ensure that consumers receive copies of the appraisals and other written valuations at an earlier point in the transaction when they are most useful (and can, for example, inform price negotiations). An organization advocating for affordable housing suggested a deadline of three days after the creditor's approval, while a real estate agent trade association suggested 10 days after receipt, and an appraisal group suggested 20 days after receipt.

A large lending institution opposed a *per se* time limit, such as 30 days, however. This commenter suggested that removing the reference to 30 days would ensure lenders can provide an integrated package that includes all appraisal and other valuation documents. Otherwise, an appraisal received earlier in the application process potentially would need to be disclosed before a valuation received later. Other industry commenters embraced the requirement to provide copies of the appraisals and other written valuations three business days before consummation, without expressing support for the 30-day limit in the timing requirement. One industry commenter suggested, however, that the 30-day limit should apply in the case of an incomplete application. Another industry commenter suggested the time period for providing copies should not begin until the application is ''complete'' within the meaning of Regulation B, § 1002.2(f).

One large lending institution requested that the Bureau exercise its exception authority to allow creditors to provide copies of non-substantive changes to appraisals and other written valuations, such as typographical errors, at consummation. This commenter believed that without this exception, the applicant could receive multiple versions of the same document, with only non-substantive differences. The commenter expressed concern that this result would distract consumers and interfere with their ability to analyze the information received.

Finally, one commenter suggested counting the day of consummation for purposes of the three-business-day requirement, and the day of receipt for purposes of the proposed general 30-day limit.

Commenters generally supported the proposed provision granting the borrower the right to waive the three-business-days-before closing requirement for providing copies of the appraisal or other written valuation so that the copies can be provided at or before closing; no comments opposed the proposal to allow for a waiver. Several commenters noted that a waiver right would be important to prevent delayed closings. A few comments requested that the final rule provide additional guidance on what constitutes a valid waiver. One creditor trade association suggested this guidance be provided in the form of a safe harbor, including explicit authorization for creditors to seek waivers. Two other creditor trade associations also sought confirmation that creditors could inform consumers of their ability to provide waivers. An appraisal industry commenter suggested, however, that before a creditor could seek a waiver, the creditor should provide a full explanation of the value of receiving the copies in a prompt manner, such as the value the copy may have in negotiations where the valuation estimate is below the originally agreed-upon price.[37] A creditor also requested guidance on

[35] For clarity and to be consistent with other similar regulatory requirements under TILA and RESPA, the Bureau proposed to use the term ''consummation'' in place of the statutory term ''closing'' and to clarify that the statutory term ''3 days'' means ''three business days.''

[36] One commenter also expressed concern that the term ''consummation'' is not plain English, and that a deadline based upon this term could be difficult to understand. This comment is discussed further below in the analysis of § 1002.14(b)(1).

[37] This commenter also questioned the logic of allowing one applicant in a multi-applicant transaction to waive the timing for all applicants.

whether the waiver can be provided within three days prior to consummation. This commenter cited instances where a delay in receipt of a final appraisal due to minor corrections resulted in a delayed closing because a waiver had not already been executed three or more days before closing.[38] A credit union commenter went further, arguing that consumers should be allowed to waive the timing requirement, regardless of whether the corrections are minor.

Discussion. For the reasons explained below, proposed § 1002.14(a)(1) and its accompanying commentary are being revised to clarify the timing and waiver provisions of the rule. The timing requirement in § 1002.14(a)(1) is revised to provide greater clarity. In addition, the final rule includes new comments 14(a)(1)–4 and 5 to clarify the timing requirement. The final rule adopts proposed comment 14(a)(1)–4 regarding waiver with clarifications and renumbers it as comment 14(a)(1)–6.

As proposed, § 1002.14(a)(1) would have required providing copies ''promptly (generally within 30 days of receipt by the creditor), but not later than three business days prior to consummation of the transaction, whichever is first to occur.'' Several commenters sought clarification and explanation of this proposed timing requirement, which had merged language from ECOA section 701(e) as amended and existing § 1002.14. For the reasons discussed below, the Bureau is revising this language to provide a simpler rule: The copy must be provided promptly upon completion of the appraisal or other written valuation, or three business days before consummation (for closed-end credit) or account opening (for open-end credit), whichever is earlier. The Bureau is including the reference to ''account opening'' to accommodate the application of § 1002.14(a)(1) to open-end credit transactions and for consistency with Regulation Z. Regulation Z does not use the term ''consummation'' for open-end credit secured by a dwelling. *See, e.g.,* § 1026.40 (referring to ''opening'' of home equity plans).

New comments 14(a)(1)–4 and 5 clarify that the ''promptly upon completion'' standard is applied based upon the facts and circumstances and provide illustrative examples of situations in which the timing requirement would or would not be met. Comment 14(a)(1)–4.v clarifies that in the absence of a waiver (*see* discussion below), the ''promptly upon completion'' requirement governs even if no consummation or account opening occurs.

Based upon industry comments noting that appraisals and other valuations may undergo review and revision, the Bureau believes that basing the ''promptly'' standard upon the date of receipt could interfere with creditors' review processes or lead to copies being provided to consumers before the review processes are complete. In addition, using the date of receipt as a point of reference could create confusion and uncertainty, as the Dodd-Frank Act amendment of section 701(e) refers to ''promptly upon completion.'' Therefore the final rule does not mandate using the date of receipt as the reference point for the timing requirement.[39]

The Bureau also is not finalizing the use of a fixed time period from the creditor's receipt of the appraisal as the general standard for determining whether copies are promptly provided to applicants. Upon further consideration, and in light of the public comments received, the Bureau believes that a time period of 30 days of receipt may not result in promptly providing copies to applicants in many instances. Congress' use of the term ''promptly upon completion'' evidences an intent that applicants should be provided with copies of valuations without delay. As some commenters noted, the earlier these copies are received in the loan process, the more helpful they are to consumers in analyzing the transaction. Applying a fixed 30-day timing requirement could result in applicants not receiving copies of valuations until late in the loan process, even when these valuations have been completed weeks earlier. Thus the final rule does not generally apply a fixed time of 30 days.[40]

However, as a large bank commenter noted, mandating a fixed time frame could reduce the chance that an integrated set of materials could be provided in a transaction involving several types of valuations. Similarly, mandating a fixed time frame of any kind could increase the chances that the creditor would need to make multiple deliveries of copies of appraisals or other valuations. For example, if a creditor receives a valuation from an AVM earlier in the application process, and the fixed time period were to elapse before the appraisal is complete, then the creditor would be required to send the copy of the AVM out before the copy of the appraisal.[41] This would increase burden on creditors, due to an increase in the number of transactions in which creditors would need to make multiple deliveries of copies to applicants.

In addition, the Bureau notes that a fixed time period is not specified in industry guidelines such as requirements used by the GSEs which purchase or guarantee a significant number of first lien mortgage transactions annually. The timing requirement for providing copies of appraisals in these recently-adopted GSE guidelines is based upon the Home Valuation Code of Conduct (HVCC). The HVCC—a standard that had been previously adopted by FHFA in 2008 shortly before Congress began to draft the Dodd-Frank Act—contained a timing standard that is similar to that ultimately included in ECOA section 701(e) as amended.[42]

For the reasons stated above, the commentary to the final rule clarifies that the meaning of the term ''promptly upon completion'' depends upon the

[38] While the commenter did not identify which existing standards may have caused such closing delays, the Bureau notes that this type of problem may arise under GSE Appraisal Independence Requirements discussed below.

[39] Similarly, the Dodd-Frank Act amendment of section 701(e)(1) also requires that the creditor provide applicants with copies of appraisals and other valuations promptly upon their completion, even if the application is incomplete, withdrawn, or denied. Therefore, the Bureau is not adopting the suggestion of one commenter to tie the timing of providing copies to the timing of the ''completed'' application under Regulation B.

[40] As noted above, a large creditor suggested if there are multiple valuations, some of which are prepared or finalized later in the origination process, a period longer than 30 days from receipt of the first valuation could be needed to provide an integrated package of valuation copies to consumers. While the Bureau appreciates that an integrated package that includes all of the appraisals or other written valuations developed in connection with the application may be helpful to applicants, the Bureau believes that this approach could result in some of the valuations in the integrated package not being provided promptly. Further, the Bureau does not believe that the benefit of this suggested approach would outweigh the value to the applicant of receiving the copies earlier in the transaction.

[41] The time period creditors will need to review appraisals also may change in the future, as rules may be adopted by Federal banking agencies under section 1473 of the Dodd-Frank Act, amending section 1110 of FIRREA to provide for review of appraisals for compliance with USPAP.

[42] Fannie Mae Selling Guide, *''Appraiser Independence Requirements,''* (Oct. 15, 2010), *available at https://www.fanniemae.com/content/fact_sheet/air.pdf* (Part III requires that ''the Borrower is provided a copy of any appraisal report concerning the Borrower's subject property promptly upon completion at no additional cost to the Borrower, and in any event no less than three days prior to the closing of the Mortgage.''); Freddie Mac, *Single Family Seller/Servicer Guide,* Exhibit 35, Appraiser Independence Requirements (Oct. 15, 2010) (same). These requirements were incorporated directly from Part II of the Home Valuation Code of Conduct (Dec. 23, 2008), adopted by Federal Housing Finance Agency, *available at http://www.fhfa.gov/webfiles/2302/HVCCFinalCODE122308.pdf.*

facts and circumstances, including when the creditor receives the appraisal or other written valuation, and when any review or revisions occur. New comment 14(a)(1)–4 also clarifies when ''completion'' occurs for these purposes. Completion occurs when the lender has ''reviewed and accepted the appraisal or other written valuation to include any changes or corrections required,'' or when the creditor receives the last version, whichever is later.[43]

This guidance is then illustrated by several examples in new comment 14(a)(1)–5 of situations in which the ''promptly upon completion'' standard would or would not be satisfied. While the ''promptly upon completion'' standard does not provide the same degree of certainty as a fixed time period, the Bureau believes that the statute specifically contemplates a standard that is flexible.

The Bureau's final rule implements the statutory requirement that copies of valuations be provided promptly upon completion, but not later than three days before consummation. As noted in the 2012 ECOA Appraisals Proposal, the Bureau is interpreting ''days'' as used in the statute to mean ''business days.'' The Bureau did not receive comments on this interpretation, and is adopting this standard as proposed.

To ensure applicants actually receive the mandated copies at least three business days prior to consummation or account opening (absent waiver), the final rule includes additional guidance in comment 14(a)(1)–4. Under this comment, ''provide''—which is a statutory term in ECOA section 701(e)(4) [44] that is similar to the term ''furnish'' in ECOA section 701(e)(1)—is interpreted to mean delivery to the applicant. The comment clarifies that delivery occurs three business days after mailing or delivering the copy to the last-known address of the applicant, or when evidence indicates the applicant actually received the copies, whichever is earlier. The Bureau believes this clarification is consistent with the plain meaning of the applicable terms ''furnish'' and ''provide'' in Dodd-Frank Act section 1474. In addition, this approach is generally consistent with the proposed approach to the three-business-day timing requirement in the 2012 TILA–RESPA Proposal.[45] This clarification also should prevent situations in which the creditor mails copies of appraisals or other written valuations to the applicant three business days before consummation or account opening, and the applicant does not receive these materials until after the consummation or account opening. This clarification thus should ensure that applicants have at least the minimum amount of time contemplated by section 701(e) to review these copies before the transaction is consummated or the account is opened.

While one commenter requested including the day of consummation in the three-business-day time period that is part of § 1002.14(a)(1), the final rule does not adopt this approach. Under this approach, if a closing were to occur at 9 a.m. on a Friday, copies of the appraisals and other written valuations could be disclosed at 11:59 p.m. on the preceding Wednesday via email. This would leave the consumer with effectively only one day to review the materials, which would be inconsistent with the three-day requirement in the statute.

The waiver provision in § 1002.14(a)(1) is revised to clarify that a waiver applies to both components of the general timing requirement, and not only to one aspect of it. As proposed, the waiver would have applied to only one component of the proposed timing requirement, the requirement that copies be provided three business days before closing. Read literally, the proposed waiver provision would not have applied to the other component of the timing requirement, the requirement that copies be provided ''promptly.'' As a result, as proposed, applicants would only have been permitted to partially waive the timing requirement.

Upon further consideration, the Bureau interprets section 701(e)(2) to permit consumers to provide a waiver of both components of the timing requirements. Otherwise, the effect of a waiver would be unclear, providing a disincentive for applicants and creditors to avail themselves of this provision, even where a waiver would be in the applicant's interest. Additionally, to the extent that the Bureau's final rule departs from the language of the statute in this regard, the Bureau relies on its authority under section 703(a) to make provisions and adjustments to effectuate the purposes of and facilitate or substantiate compliance with ECOA. The Bureau finds that this adjustment is warranted to ensure creditors' ability to obtain and applicants' ability to provide a valid waiver of the timing requirements of § 1002.14(a)(1).

The Bureau is finalizing the provision in proposed § 1002.14(a)(1) that waiver is permitted ''except where otherwise prohibited by law.'' No commenters specifically addressed this provision in the proposed rule, which is based upon the statutory language in ECOA section 701(e)(2). The Bureau continues to believe this limitation is important to clarify that other provisions of law may not permit waiver. For example, the 2013 Interagency Appraisals Final Rule under TILA section 129H does not provide for a waiver of the timing requirement for providing copies of written appraisals no later than three business days before consummation.

With respect to the form of the waiver, the Bureau is finalizing in renumbered comment 14(a)(1)–6 the provision in proposed comment 14(a)(1)–4 allowing for an affirmative oral or written statement.[46] A more prescriptive, rigid, or specific set of requirements as to the form of the waiver could unduly restrict the applicant's ability to exercise the waiver right. By allowing for an affirmative oral or written waiver, the final rule is designed to allow creditors to apply existing practices such as the standards for waiver of the appraisal copy requirement under the Appraisal Independence Requirements applied by certain GSEs.[47] If the waiver resulted in

[43] *See* Fannie Mae, *Appraiser Independence Requirements Frequently Asked Questions* (Nov. 2010), *available at https://www.fanniemae.com/content/faq/appraiser-independence-requirements-faqs.pdf* (question 46 stating that ''[t]he word 'completion' is meant to reflect when the lender has reviewed and accepted the appraisal to include any changes or corrections required.''); *see also* Freddie Mac, *Appraiser Independence Requirements Frequently Asked Questions, available at http://www.freddiemac.com/singlefamily/appraiser_independence_faq.html#52* (question 52 stating that ''[t]he terms 'promptly upon completion' and 'completed appraisal' refer to when the lender has reviewed and accepted the appraisal to include any changes or corrections required.'').

[44] ECOA section 701(e)(4) states, in pertinent part, ''[T]he creditor shall provide a copy of each written appraisal or valuation at no additional cost to the applicant.''

[45] *See* 77 FR 51116 at 51313–14, 51427 (Aug. 23, 2012) (proposed § 1026.19(f)(1)(iii) and commentary).

[46] Where there are multiple applicants, the final rule adopts the proposed approach of allowing one applicant to waive the timing requirement. This approach is consistent with the 2013 Interagency Appraisals Final Rule being adopted under section 129H of TILA. Comment 14(a)–1 is revised to clarify that the waiver must be provided by the primary applicant where one is readily apparent. This change is designed to ensure that in multiple applicant transactions, the individual providing the waiver generally is the same individual who would be receiving the documents.

[47] *See* Fannie Mae, *Appraiser Independence Requirements Frequently Asked Questions* (Nov. 2010) (question 45 stating that Fannie Mae ''does not specify what form the waiver must take or whether it be oral or written. In addition, [the Appraiser Independence Requirements standard] does not prohibit that a waiver, given in a timely manner, be recorded at some later point when the parties are available. … For example, a lender may obtain a waiver from a borrower through an email, phone call, or some other means, prior to the three-day period, and then have that waiver recorded in writing at the settlement table or at some other

an applicant not receiving an appraisal or other written valuation at all or until after consummation or account opening, a more prescriptive approach might be warranted. Under the final rule, however, even if the waiver is obtained, creditors are still required to provide the required copies at or before consummation or account opening.

With respect to when the waiver must be provided, § 1002.14(a)(1) is revised in the final rule. ECOA section 701(e) is silent on when the waiver must be provided. As noted above, several industry commenters asked the Bureau to provide more guidance on how waivers can occur. The Bureau believes that further clarity on when applicants can provide waivers is important. Under § 1002.14(a)(1) in the final rule, as further clarified in comment 14(a)(1)–6, waivers can be provided in either of two situations: generally before three business days of consummation or account opening,[48] or within three business days of consummation or account opening if certain conditions are met.

The Bureau believes that, in general, requests for waivers should not be presented to consumers less than three business days before consummation or account opening. Permitting such requests would, in the Bureau's view, present a risk that consumers would feel unduly pressured to provide waivers in order to avoid delays in closing and that creditors could use such waivers to cure previous violations of the rule's timing requirements. The Bureau is adopting in § 1002.14(a)(1) an exception to this general rule, however, governing treatment of waivers pertaining to copies of appraisals or other written valuations containing correction of clerical errors in previously-provided copies.

Section 1002.14(a)(1) and the associated comment 14(a)(1)–6.ii therefore clarifies that an applicant can provide a waiver within three business days of consummation or account opening in the following circumstance: the creditor receives a revised version of an appraisal or other written valuation that the applicant already received three business days before consummation or account opening. The option to provide a waiver in this situation would only apply, though, if each of the following criteria are met: (1) The revisions are solely to correct clerical errors in that appraisal or other written valuation; (2) the revisions have no impact on the estimated value; (3) the revisions have no impact on the calculation or methodology used to derive the estimate; and (4) the applicant receives the copy of the revised appraisal or other written valuation at or prior to consummation or account opening. The Bureau believes this approach strikes an appropriate balance by allowing consumers to exercise their waiver right to avoid delays in closing due to last-minute, purely clerical corrections in appraisals and other written valuations.[49]

Finally, the Bureau is adding language to § 1002.14(a)(1) to clarify the timing requirement in situations where the applicant has provided a waiver, but no consummation or account opening occurs. In that instance, the copy must be provided no later than 30 days after the creditor determines the transaction will not be consummated or the account will not be opened. In the absence of a statutory timeframe applicable to this situation, the Bureau is exercising its authority under ECOA section 703(a) to adopt a reasonable period for providing copies. The Bureau believes that providing a clear rule will reduce compliance burden and risks for creditors, while ensuring that consumers receive copies in a timely fashion. Additionally, the timeframe adopted uses familiar timeframes from longstanding timing requirements for providing copies of appraisals under existing § 1002.14(a)(2)(ii).[50]

Delivery of Copies of Appraisals and Other Written Valuations

Section 1474 of the Dodd-Frank Act amended ECOA section 701(e) to mandate that creditors provide copies of appraisals and other written valuations regardless of whether the consumer affirmatively requests such copies. Accordingly, the Bureau proposed to remove current § 1002.14(a)(1) and (2), which permitted creditors to choose between the ''routine delivery'' and ''delivery upon request'' methods of complying with the requirements of § 1002.14. Further, proposed comment 14(a)(1)–1 clarified that if there is more than one applicant, the disclosure about appraisals and the provision of copies of appraisals need only be given to one applicant, but they must be given to the primary applicant where one is readily apparent.

Public comments. An appraisal group commenter suggested that the rule should require providing copies to all applicants in a multi-applicant transaction, if consent has been given to provide the copies by electronic means. Another industry commenter requested clarification of whether delivery can be made to the same address for multiple applicants. Finally an industry commenter asked whether delivery can be made to the last-known address.

Discussion. With respect to whether copies of appraisals and other written valuations can be sent to the last known address, new comment 14(a)(1)–4 provides that copies of appraisals and other written valuations are deemed ''provided'' three days after they are mailed to the last known address of the applicant. *See also* comment 9–3 (adopting the ''last-known address'' standard for adverse action notices). The Bureau does not believe the other requested clarifications regarding this provision are necessary. The commentary makes clear that the creditor is required to deliver the materials only to one applicant in a multiple-applicant transaction.

The final rule also does not adopt the suggestion by an appraisal industry group commenter of requiring copies of appraisals and other written valuations to be sent to all applicants in a multiple-applicant transaction, if the copies are being sent by electronic means. Having different rules for different means of communication of the copies would introduce additional complexity, especially if not all of the applicants have consented to electronic disclosures. This could have the unintended effect of discouraging creditors from adopting electronic delivery methods. Even if all applicants have consented to delivery by electronic means, the approach suggested by the commenter does not override the general principle that providing copies to one applicant (such as the primary

time.''); *see also* Freddie Mac, *Appraiser Independence Requirements Frequently Asked Questions,* Questions 45–46.

[48] *See* Freddie Mac, *Appraiser Independence Requirements Frequently Asked Questions* (question 43 stating that ''[i]f the borrower waives the requirement the waiver must be obtained three days prior to the closing of the mortgage.''); *see also* Fannie Mae, *Appraiser Independence Requirements Frequently Asked Questions* (Nov. 2010) (question 45 stating that ''[s]ituations in which a borrower is unaware of his or her right to a copy of the appraisal prior to the three days and is then provided a waiver of that right at the closing table would not be compliant with the intent of [the Appraiser Independence Requirements]'').

[49] This approach also is supported by other mortgage regulations that allow for technical revisions of materials otherwise due to the consumer prior to consummation. *See, e.g.,* RESPA Regulation X, § 1024.8(c), providing an exception for the timing of a disclosure of a HUD–1 settlement statement which makes a technical correction; *see also* the Bureau's 2012 TILA–RESPA Proposal, proposed § 1026.19(f)(2)(iv), which would provide an exception for the timing of a disclosure due to clerical errors, and proposed comment 19(f)(2)(iv)–1 (clarifying that ''an error is clerical if it does not affect a numerical disclosure'').

[50] Tying this timing requirement to a different point in time, such as receipt of an appraisal or other written valuation, could result in creditors who have received waivers not being able to comply when more than 30 days elapse between receipt and a decision not to consummate the transaction or open the account.

applicant) in a multiple-applicant transaction is sufficient. Indeed, the suggestion of this one industry commenter was not reflected by other commenters, whether in industry or on behalf of consumers. The Bureau therefore believes that a uniform requirement, allowing copies to be provided to one applicant regardless of how they are provided, will best facilitate compliance.

14(a)(2) Disclosure

ECOA section 701(e)(5) requires that, at the time of application, the creditor ''notify an applicant in writing of the right to receive a copy of each written appraisal and valuation'' under section 701(e). Accordingly, the Bureau proposed in section 1002.14(a)(2) that, not later than the third business day after the creditor receives an application subject to § 1002.14(a)(1), a creditor shall provide an applicant with a written disclosure of the applicant's right to receive a copy of all appraisals and other written valuations developed in connection with such application.

Content

Title XIV of the Dodd-Frank Act added two new appraisal-related disclosure requirements for consumers. New section 701(e)(5) of ECOA, which is implemented in this final rule, provides as follows: ''At the time of application, the creditor shall notify an applicant in writing of the right to receive a copy of each written appraisal and valuation under this subsection.'' 15 U.S.C. 1691(e)(5). Similarly, section 129H(d) of TILA, as added by the Dodd-Frank Act, provides as follows: ''At the time of the initial mortgage application, the applicant shall be provided with a statement by the creditor that any appraisal prepared for the mortgage is for the sole use of the creditor, and that the applicant may choose to have a separate appraisal conducted at the expense of the applicant.'' 15 U.S.C. 1639h(d). In the absence of regulatory action to harmonize the two provisions, creditors would be required to provide two appraisal-related disclosures to consumers for certain loans (*i.e.,* a TILA and an ECOA disclosure for higher-risk mortgage loans secured by a first lien on a consumer's principal dwelling) and just one for certain others (*i.e.,* an ECOA disclosure for first-lien, dwelling-secured loans that are not higher-risk mortgage loans, or a TILA disclosure for higher-risk mortgage loans secured by a subordinate lien).

Given that the ECOA and TILA disclosures were both created by the same legislation (the Dodd-Frank Act) to address overlapping subject matter (provision of copies of appraisals) in many of the same transactions (first liens secured by dwellings), the Bureau believes that Congress did not intend the disclosure requirements to be implemented in a disjointed manner that might cause consumer confusion and compliance burden for creditors. As explained in the proposal, the Bureau believes the combined disclosure will allow for additional text necessary to promote consumer comprehension, while also reducing compliance burden for industry by allowing for a single disclosure to satisfy both statutory requirements. Accordingly, the Bureau believes this approach serves the interests of consumers, the public, and creditors. On this basis, the Bureau proposed to exercise its authority under section 703(a) of ECOA and section 1405(b) of the Dodd-Frank Act to conform the two disclosure requirements. In connection with the proposed § 1002.14(a)(2) requirement of notifying applicants of their ''right to receive a copy of all written appraisals and valuations developed in connection with [their] application,'' the Bureau proposed revising the sample disclosure form C–9 for appraisals in Regulation B to include language to satisfy the new appraisal-related disclosure requirements of both ECOA and TILA.

As part of its larger Know Before You Owe public outreach project, which is described in more detail in Part III above, the Bureau tested several versions of the new appraisal-related disclosures, all of which combined the disclosures required by both ECOA section 701(e) and TILA section 129H. This testing included consumers and industry participants.[51] The Bureau believed that it was important to test both disclosures together in order to determine how best to provide disclosures required by ECOA section 701(e) and TILA section 129H in a manner that would minimize consumer confusion and improve consumer comprehension. Testing showed that consumers tended to find the combined TILA and ECOA disclosures confusing when they used specific language set forth in the statute. Consumer comprehension improved when the Bureau developed a slightly longer plain language disclosure that was designed to incorporate the elements of both statutes.[52] Based upon the results of that testing, the Bureau developed and tested the following sample disclosure language it proposed to include in Form C–9: ''We may order an appraisal to determine the property's value and charge you for this appraisal. We will promptly give you a copy of any appraisal, even if your loan does not close. You can pay for an additional appraisal for your own use at your own cost.''

Public comment. Industry commenters generally supported development of sample disclosure language that meets the disclosure requirements of both ECOA section 701(e) and TILA section 129H. Commenters said this approach would increase consumer understanding and reduce creditor burden and cost, eliminating the need for multiple, partially duplicative disclosures. Several commenters requested that the sample disclosure include additional clarifying language.

First, some industry commenters suggested the sample disclosure include an explanation of creditor use of applicant-ordered appraisals. These comments suggested that applicants should either be told that creditors are prohibited from using such appraisals, or that borrowers should be notified that creditors are under no obligation to use the appraisals. One commenter also suggested that confusion on this issue could be avoided by simply removing language concerning the right of applicants to order their own appraisals. Comments by two national associations of creditors suggested the final rule provide guidance confirming that creditors could vary the text of the disclosure to exclude the sentence about applicant-ordered appraisals, as ECOA did not require this sentence.[53]

Second, several industry commenters urged the Bureau to include the word ''valuation'' in the sample consumer disclosure describing the materials the consumer may receive. Commenters generally believed this additional language would help consumers to understand that some of the information they receive may not be appraisals, and

[51] Kleimann Comm. Gp., Inc., *Know Before You Owe: Evolution of the Integrated TILA–RESPA Disclosures* 254–256 (July 9, 2012), available at *http://files.consumerfinance.gov/f/201207_cfpb_report_tila-respa-testing.pdf.*

[52] *Id.* The discussion in the section-by-section analysis of this final rule is limited to the testing of the disclosure to be provided in connection with a consumer's application, which is the portion of the testing relevant to the appraisal-related disclosure required by § 1002.14(a)(2). As discussed in the supplementary information to the 2012 RESPA–TILA Proposal, the Bureau and Kleimann also tested prototype designs for the integrated disclosure forms to be provided in connection with the closing of the mortgage loan and real estate transaction. *See* the Bureau's 2012 TILA–RESPA Proposal, available at *http://consumerfinance.gov/regulations/.*

[53] An industry commenter also was concerned that applicants might think they could order their own appraisals directly from the creditor, because the creditor was providing the disclosure.

in some cases they might not receive an appraisal.

Other industry commenters offered other suggestions. These ranged from informing consumers that the time frame for ''promptly'' providing the copies would begin from when the creditor receives the appraisal or other valuation, to advising consumers that the creditor could charge for additional copies of appraisals or other valuations beyond the first copy provided.

Discussion. While the Bureau has considered the comments described above, the Bureau is adopting the sample disclosure language in form C–9 as proposed. The 2013 Interagency Appraisals Final Rule under TILA section 129H allows for an appraisal notice that is the same as the language in form C–9, thus preserving the option of using a single disclosure to satisfy both rules.

The Bureau is not modifying the sentence regarding applicant-ordered appraisals. The language informing applicants they can order their own additional appraisals is included in the sample disclosure in form C–9 so that this disclosure can also be used to satisfy the requirements of the 2013 Interagency Appraisals Final Rule under TILA section 129H, as discussed above, and more broadly to educate consumers (whether or not they are applying for a higher risk mortgage subject to TILA section 129H) on their right to order an additional appraisal for their own use. If this information were not included in the sample disclosure, then it could not be used to satisfy the requirements under TILA section 129H and its implementing regulation, the 2013 Interagency Appraisals Final Rule. Therefore the final rule maintains this portion of the sample disclosure in form C–9. To address industry comments suggesting borrowers might try to compel lenders to use applicant-ordered appraisals in an inappropriate manner, new comment 14(a)(2)–1 is being included in the final rule. This comment clarifies that the rule does not affect restrictions on creditor use of applicant-ordered appraisals by creditors. The Bureau does not believe, however, that the concise, tested language in the sample disclosure should be expanded to discuss these standards, which are complex and subject to varying interpretations. For example, industry commenters differed in their views on whether or how creditors may use these appraisals. Elaborating on this language in the sample disclosure to inform consumers that creditors cannot use or are not obligated to use the appraisals applicants may order, without a more detailed explanation of the standards governing the creditor conduct in the appraisal process, could discourage consumers from ordering their own appraisal as a means of disputing the appraisal ordered by the creditor, if they were to choose to do so.[54] Such information could detract from consumer comprehension of the disclosure, and in any event is not required by ECOA section 701(e).

On the issue of whether to include the word ''valuations'' in the text of the consumer disclosure, the Bureau is not persuaded that this additional language would improve consumer comprehension and understanding. Consumer testing of an earlier version of the sample disclosure language, conducted in connection with the Bureau's 2012 TILA–RESPA Proposal, indicated that consumers preferred a disclosure that did not include the word ''valuation'', as simpler and easier to understand. While ECOA section 701(e) calls for a disclosure that includes this word, as noted above, the Bureau is exercising its exception authority so that the disclosure under section 701(e) can be harmonized with TILA section 129H, which, among other differences, does not refer to ''valuations.'' Based upon consumer testing indicating the proposed text was easier to understand without the word ''valuation,'' and because allowing a single disclosure option for creditors that satisfies both regulations under ECOA section 701(e) and TILA section 129H reduces creditor burden and the volume of consumer disclosures, the Bureau believes this exception would facilitate compliance and consumer understanding. If the term ''valuations'' were included in the text of the consumer disclosure, the disclosure would not be the same as the disclosure for subordinate lien transactions (which are not subject to section 701(e)), detracting from the unified approach that industry commenters widely supported. Regardless, if a non-appraisal valuation is developed in connection with a creditor's credit decision, then a copy of that valuation must be provided under the final rule. The final rule does not regulate communications at the time the valuation copy is provided. Creditors may choose to include explanations of the non-appraisal valuation, if one is provided. The Bureau believes that allowing voluntary description by the creditor at the point of providing copies is preferable to mandating a more complex up-front disclosure that could generate consumer confusion. In summary, the Bureau believes that the unified disclosure benefits both consumers and creditors because it clearly communicates basic information required by both ECOA section 701(e) and TILA section 129H in one disclosure.

The Bureau notes, however, that proposed § 1002.14(a)(2) would have required notifying applicants of their right to receive not only an appraisal, but also a ''valuation.'' This may have led to some of the commenters' suggestions of including the term ''valuation'' in the sample disclosure. Accordingly, for the sake of clarity, and to confirm that sample disclosure C–9 (whose text does not refer to the word ''valuation'') would satisfy the disclosure requirement in § 1002.14(a)(2), the final rule modifies the disclosure requirement to delete the word ''valuation.'' [55] This change is made based upon the same exercise of the exception authority used to develop form C–9, discussed above. The Bureau believes this change will prevent confusion as to what language is required to be included in the disclosure.[56]

The final rule also does not adopt other changes industry commenters suggested for the sample consumer disclosure, as consumer testing did not suggest these changes are necessary. For example, the Bureau does not believe it is necessary to modify the sample disclosure to inform consumers that applicants can be charged for additional copies beyond the first copy. The sample disclosure already only refers to the right to receive ''a copy'' without charge. Consumer testing did not indicate that consumers were concerned about what could happen if they wanted additional copies. The Bureau also does not believe that the sample disclosure should be revised to state when the time period for ''promptly'' providing the copies begins. The sample disclosure already states the creditor will promptly provide a copy of an appraisal the

[54] *See* 12 CFR 1026.42(c)(3) (describing permitted actions that do not conflict with appraisal independence standards in § 1026.42(a)–(b)). While one commenter suggested the sample disclosure could lead borrowers to believe, incorrectly, that they may order appraisals from the creditor, consumer testing did not suggest this confusion is likely. The Bureau therefore declines to alter the sample disclosure to instruct applicants on how they can order appraisals.

[55] The word ''valuation'' also is removed from the title of the sample disclosure, for consistency with the disclosure requirement and the disclosure text.

[56] In addition, because the sample disclosure is not a mandatory disclosure, creditors may voluntarily choose to refer to the term ''valuation'' in the disclosure unless prohibited by other regulations (for example, if the sample language is required to be included in the Loan Estimate under any final TILA–RESPA Integration rule, and that rule applies to the transaction).

creditor may order in the future. This language already implies that the creditor will first need to receive and if necessary review the original before it makes copies. Consumer testing indicated a strong preference for succinct, focused language in the appraisals disclosure, and did not suggest consumers wanted additional clarification on the precise nature of the timing requirement.

Finally, to clarify the extent to which the text in sample disclosure from C–9 can be modified by creditors, the Bureau is revising the commentary. If the 2012 TILA–RESPA Proposal is adopted as proposed, that rule would require including in the TILA–RESPA Loan Estimate the same language as this final rule adopts in the sample disclosure form C–9, without variation. On the other hand, the 2012 TILA–RESPA Proposal and the mandatory forms proposed therein would not apply to open-end credit or reverse mortgage transactions. Therefore the potential to modify the language in the sample disclosure may depend on the applicability of laws and regulations other than ECOA and this final rule. Comment Appendix C–1–ii therefore is revised to clarify that creditors may modify the model form C–9 unless otherwise provided by law.[57] This comment, as revised, addresses the commenter question of whether the sentence in form C–9 referring to applicant-ordered appraisals can be modified (or deleted); as the comment suggests, the sentence could not be changed if the sentence is required by another applicable regulation, such as the consumer disclosure requirement in the 2013 Interagency Appraisals Final Rule under TILA section 129H applicable to higher-risk mortgages. This change to the commentary also clarifies that this or any other modification would not be permitted in a transaction that is subject to the TILA–RESPA rule that the Bureau finalizes in the future, to the extent that final rule maintains the mandatory forms from the 2012 TILA–RESPA Proposal.

Timing of Disclosure

ECOA section 701(e)(5) requires creditors to notify applicants in writing, at the time of application, of the right to receive a copy of each appraisal and other written valuation. The Bureau interprets the phrase ''at the time of application'' to require creditors to provide the ECOA appraisal disclosure not later than three business days after receiving an application. The Bureau's proposed § 1002.14(a)(2) would have required creditors to notify applicants in writing, not later than the third business day after a creditor receives such application, of the right to receive a copy of all appraisals and other written valuations developed in connection with such application.

This approach to the timing of the notification is consistent with the disclosure requirements of TILA and RESPA. Currently, in transactions subject to TILA and RESPA, creditors are required to provide disclosures required under TILA and RESPA not later than the third business day after receiving a consumer's written application.[58] In its 2012 TILA–RESPA Proposal to integrate the other TILA and RESPA requirements, the Bureau has proposed that the ECOA appraisal disclosure be provided as part of the Loan Estimate disclosure to be delivered not later than the third business day after application.[59]

The Bureau stated in the preamble to its ECOA proposal that it believes this approach is warranted because providing the disclosure to applicants at the same time as other similar disclosures—and (once adopted) as part of a broader integrated disclosure document—would allow consumers to read the notification in context with other important information that must be delivered not later than the third business day after the creditor receives the application. Such an approach could reduce the number of pieces of paper that consumers receive and facilitate compliance by creditors.

Public comments. Many commenters expressed support for the three-business-day time frame for the disclosure to be made, consistent with the current and proposed TILA–RESPA approach. Several commenters cited the ability to integrate the ECOA appraisal disclosure into the integrated TILA–RESPA Loan Estimate when adopted as a reason for supporting the timing requirement in the proposed rule. While one commenter suggested the disclosure could be better timed as part of the application process itself, other commenters said it would be burdensome for lenders to provide the disclosure at that time. One commenter also suggested the deadline for the disclosure be extended to 10 business days.

A large lending institution also requested clarification on when the disclosure must be given in business transactions in which the use of a dwelling as collateral is negotiated and added as a term of the credit agreement well after the initial application has been submitted. In this type of situation, the comment recommended that the final rule either clarify that the disclosure requirement applies only if the initial loan application contemplates the lender taking a first lien on a dwelling, or provide the creditor an opportunity to cure and provide the disclosure at some later point in the application process when it becomes apparent a dwelling will be used as collateral.

Discussion. Consistent with most of comments received on the timing of the disclosure, the final rule maintains the three-business day timing requirement for the reasons stated in the proposal. This time period allows lenders to align ECOA appraisal disclosures with TILA–RESPA early disclosures in transactions that are covered by TILA and RESPA. Earlier timing requirements would place additional burden on creditors, while later timing requirements could result in an unwarranted departure from the statutory time frame. To ensure consistency with the requirements of TILA and RESPA, including section 129H of TILA, the final rule also includes new conforming language in § 1002.14(a)(2) providing that the disclosure shall be mailed or delivered not later than the third business day after the creditor receives the consumer's application.[60]

The final rule includes an exception to this requirement, however. In the case of an application for credit that is not to be secured by a first lien on a dwelling at the time of application, if the creditor later determines the credit will be secured by a first lien on a dwelling, the creditor shall mail or deliver the notice required under § 1002.14(a)(2) in writing not later than the third business day after the creditor determines that the loan is to be secured

[57] This comment also is revised to refer to the ''appraisal or other written valuations'', consistent with the scope of the final rule.

[58] *See, e.g.,* 12 CFR 1026.19(a)(1)(i) providing in relevant part:

In a mortgage transaction subject to the Real Estate Settlement Procedures Act that is secured by the consumer's dwelling * * * the creditor shall make good-faith estimates of the disclosures required by section 1026.18 and shall deliver or place them in the mail not later than the third business day after the creditor receives the consumer's written application.

[59] 2012 TILA–RESPA Proposal, at proposed §§ 1026.19(e)(1)(iii) and 1026.37(m)(1), *available at http://www.consumerfinance.gov/regulations/.* Proposed § 1026.19(e)(1)(iii) provides as follows: ''*Timing.* The creditor shall deliver the disclosures required under paragraph (e)(1)(i) of this section not later than the third business day after the creditor receives the consumer's application.''

[60] In addition, if TILA disclosures are provided earlier than three days after application, such as for open-end credit under Regulation Z § 1026.40, the creditor also could provide the disclosure required under § 1002.14(a)(2) at that time, though the creditor would not be required to do so.

by a first lien on a dwelling. The Bureau believes this is a reasonable interpretation of the statute in the absence of a specific provision in ECOA section 701(e) on this point. ECOA section 701(e)(5) calls for a notice ''at the time of application,'' but does not address the timing of the notice when the creditor does not know at that time that the credit will be secured by a first lien on a dwelling. The Bureau is therefore exercising its authority under ECOA section 703(a) to provide a timeframe for notification in this situation to assist creditors in complying with rule and to ensure that applicants involved in these transactions receive the notice.

The Bureau also notes that it did not receive comments on its proposal to set the start of the three-day time period as the time when the creditor receives the ''application.'' The Bureau is finalizing the use of this term as proposed. Because Regulation B already defines the term ''application'' in § 1002.2(f) with reference to the creditor's ''procedures'' for receiving a request for credit, the Bureau believes this approach will permit creditors to setup their procedures to align the timing for the appraisal notice with other disclosure requirements.

14(a)(3) Reimbursement

ECOA section 701(e)(3) affirms that creditors may require applicants to pay reasonable fees to reimburse the creditor for the cost of the appraisal, except where otherwise required in law. Section 701(e)(4) provides, however, that creditors shall provide a ''free'' copy of each appraisal or other written valuation at no additional cost to the applicant. Accordingly, the Bureau proposed § 1002.14(a)(3) to implement section 701(e)(3) and (4), as added by the Dodd-Frank Act, and provide greater clarity. The Bureau stated in the preamble to its proposal that it interpreted these two provisions to permit creditors to charge applicants reasonable fees to reimburse the creditor for costs of the appraisal or other valuation itself, but not for photocopying, postage, or similar costs associated with providing one written copy to the applicant. Thus the Bureau proposed removing current comment 14(a)(2)(ii)–1, which permits creditors to charge photocopy and postage costs incurred in providing a copy to the applicant.

The Bureau also proposed that § 1002.14(a)(3) affirm that creditors may impose fees to reimburse the costs of appraisals or other valuations. ECOA section 701(e)(3) does not expressly refer to valuations, and thus does not expressly permit or prohibit creditors from charging reasonable fees to reimburse the cost of valuations. The Bureau stated that because ECOA section 701(e)(3) does expressly permit such fees for ''appraisals,'' legislative intent with respect to other types of ''valuations'' is unclear. The Bureau stated that it believed that there is both consumer and industry benefit to affirming that creditors may charge reasonable fees for reimbursement for all types of property valuations. Absent such clarification, the statutory language might be read as implicitly forbidding creditors from charging reimbursement fees for obtaining certain types of valuations, such as broker-price opinions or AVM reports, but not for others, such as appraisals. The Bureau stated that it did not believe that Congress intended such a result, which could create an incentive for creditors to favor full appraisals over less costly forms of valuation that may be appropriate in particular circumstances.[61] Such a result would impose additional costs on loan applicants. Accordingly, the Bureau proposed to interpret section 701(e)(3) of ECOA as permitting creditors to charge applicants a reasonable fee to reimburse the creditor for the cost of developing an appraisal or other valuation, except as otherwise provided by law. In proposing this interpretation, to the extent necessary, the Bureau proposed to rely on the authority provided in ECOA section 703(a) to provide adjustments and exceptions for any class of transactions.

The Bureau proposed that comment 14(a)(3)–2 clarify that § 1002.14(a)(3) would not prohibit the creditor from charging a fee reasonably designed to reimburse costs incurred in connection with obtaining appraisal and other valuations services, but would not permit increasing the fee for the appraisal or other valuation to cover costs of providing documentation under § 1002.14. As stated in the proposal, the Bureau believed that ECOA section 701(e)(3) and (4) did not call for more prescriptive rate regulation of valuation-related activities. By contrast, section 1472 of the Dodd-Frank Act created TILA section 129E, which specifically imposes a criterion for appraiser fees—that they be ''reasonable and customary'' in the market area where the property is located—and specified various sources for determining whether fees meet the standard. The Bureau therefore stated that it did not believe that Congress intended ECOA section 701, which focuses on the provision of copies of written valuation documents to loan applicants rather than the substantive performance of appraisal and other valuation services, to function in such a manner. Accordingly, the Bureau stated that it believed that section 701(e)(3) and (4) is simply designed to prevent direct or indirect ''upcharging'' related to the provision of documents that is the focus of this section of the statute.

To clarify the statutory language stating that creditors cannot seek reimbursement for the cost of the appraisal ''where otherwise required in law,'' the Bureau also proposed that comment 14(a)(3)–2 note that other laws may separately prohibit creditors from charging fees to reimburse the costs of appraisals, and are not overridden by section 701(e)(3). For instance, section 1471 of the Dodd-Frank Act requires creditors to obtain a second interior appraisal in connection with certain higher-risk mortgages, but prohibits creditors from charging applicants for the cost of the second appraisal. TILA section 129H(b)(2)(B), 15 U.S.C. 1639h(b)(2)(B).

The Bureau proposed comment 14(a)(3)–1 to provide examples of the specific types of charges that are prohibited under the regulation, such as photocopying fees and postage for mailing a copy of appraisals or other written valuations. In addition, comment 14(a)(3)–2 was proposed to clarify that § 1002.14(a)(3) does not prohibit creditors from imposing fees that are reasonably designed to reimburse the creditor for costs incurred in connection with obtaining actual appraisal or other valuation services, so long they are not increased to cover the costs of providing copies required under § 1002.14(a)(1).

Public comment. Several commenters addressed proposed § 1002.14(a)(3). These comments generally addressed the following two aspects of § 1002.14(a)(3): the proposed provision relating to reasonable fees charged to reimburse costs of appraisals and other valuations, and the provision prohibiting charges for the costs of providing copies of appraisals and other valuations to applicants.

[61] According to estimates for the average cost of an appraisal provided by the U.S. Government Accountability Office (GAO), consumers on average pay $300–450 for full interior appraisal. *See* U.S. Gov't Accountability Office, GAO–11–653, *Residential Appraisals: Opportunities to Enhance Oversight of an Evolving Industry,* at 22 (2011). Other forms of valuation, however, tend to cost less than appraisals. Broker Price Opinions typically cost $65–125; valuations derived from an AVM typically cost $5–25. *See id.,* at 17–18; *see also* U.S. Gov't Accountability Office, GAO–12–147, *Real Estate Appraisals: Appraisal Subcommittee Needs to Improve Monitoring Procedures,* at 39 (2012).

No commenters opposed the proposal to allow creditors to charge reasonable fees for appraisals and other valuations unless otherwise provided by law. One industry commenter requested that the rule explicitly allow the fee to cover costs charged by appraisal management companies (AMCs), which can be either a component of or supplemental to the cost of the appraisal. This commenter argued that Congress did not intend to prohibit AMC fees in the Dodd-Frank Act, as it specifically provided for their disclosure in the settlement statement pursuant to RESPA section 4(c). 12 U.S.C. 2603(c). Another industry commenter suggested that the final rule interpret ''reasonable fee'' to mean a fee that was disclosed and agreed to by the applicant. A different industry commenter requested additional clarification on what could not be charged under this provision.[62]

In addition, several industry commenters requested that the rule allow creditors to withhold copies of the appraisals and other valuations if the borrower did not pay the permitted fees to reimburse the cost of appraisals and other valuations. Some commenters noted this type of exception would be particularly important in transactions where the application is withdrawn, incomplete, or denied. One commenter also requested that disclosure required under section 14(a)(2) inform the consumer of the ability of the creditor to withhold these copies.

Industry commenters were generally supportive of the proposed prohibition on charges for providing copies of appraisals and other written valuations. While a large internet lender specifically agreed with the proposed prohibition, a few lending institutions objected to the proposed prohibition on the grounds that it would force them to absorb additional costs. Because proposed § 1002.14(a)(3) and comment 14(a)(3)–1 referred to a prohibition on charges for providing ''a copy,'' several industry commenters suggested this could be read as prohibiting charges for providing duplicate or additional copies. These commenters therefore requested that the final rule clarify that creditors could charge for subsequent copies of appraisals and other written valuations. A large industry trade association also noted a concern over whether the prohibition against charging for copies of appraisals and other written valuations would prohibit indirect recovery of these costs.

Discussion. Section 1002.14(a)(3) in the final rule and associated commentary are generally adopted as proposed, with some minor clarifications as discussed below.

As in the proposal, § 1002.14(a)(3) in the final rule clarifies that charges for valuations are not prohibited by section 701(e)(3) of ECOA. No commenters addressed this provision in the proposal. As noted in the proposal, in adopting this provision in the final rule, the Bureau relies to the extent necessary on its authority to make adjustments under section 703(a) of ECOA. Such an adjustment would facilitate compliance with ECOA and prevent circumvention, and also would effectuate the purposes of ECOA. Otherwise, ECOA section 701(e)(3) might be interpreted as distinguishing between one type of valuation (an ''appraisal'') whose cost may be reimbursed by applicants, and all other types of valuations whose cost may not be reimbursed by the applicant. Yet the definition of ''valuation'' in section 701(e)(6) of ECOA refers broadly to ''any estimate of the value of a dwelling,'' without distinguishing between these types of valuations. Under such an interpretation, the Bureau would need to provide guidance on how to distinguish between appraisal and non-appraisal valuations; without such guidance, creditors could deliberately or inadvertently mischaracterize non-appraisal valuations as appraisals to recover their cost, or creditors may avoid valuations altogether to avoid incurring unrecoverable costs. Additionally, as noted in the proposal, a distinction between the ability to recover costs for appraisals versus other types of valuations could discourage creditors from using less costly forms of valuations, especially in smaller dollar-amount transactions. For example, Federal banking regulations do not require federally-insured financial institutions to obtain an appraisal in low-risk real estate-related financial transactions in which the transaction value is $250,000 or less.[63] It is not the purpose of ECOA section 701(e) to encourage one type of valuation over another; its purpose is to inform the consumer of the basis for the credit decision. Thus the adjustment in § 1002.14(a)(3) will ensure the final rule adheres more closely to the purpose of ECOA as well.

At the same time, comment 14(a)(3)–2 in the final rule clarifies that in allowing reasonable fees to reimburse[64] the cost of appraisals and other valuations, § 1002.14(a)(3) is not intended to create a legal obligation of the applicant to pay these fees. As noted above, one commenter suggested a link between the concept of a ''reasonable fee,'' and whether the fee was disclosed and agreed to by the consumer. While the Bureau does not believe that the term ''reasonable fee'' could be equated in all cases with fees disclosed to and agreed by the applicant, the commenter highlights the relevance of the applicant's agreement to pay the fee. Whether the legal obligation to pay the fee exists is a matter arising under other laws, including without limitation contract law, however. Other laws also may limit the ability to recover these fees, as indicated by the phrase ''unless otherwise provided by law'' in § 1002.14(a)(3).[65]

In response to the comment seeking clarification that § 1002.14(a)(3) does not limit the recoverability of AMC charges, the Bureau recognizes that the Dodd-Frank Act did not intend to prohibit recovery of AMC fees. As the commenter noted, RESPA section 4(c) allows but does not require creditors to break out the AMC fees on the settlement statement from the fees paid directly to the appraiser. The commenter suggests that recoverability of AMC fees was left in doubt by the proposed comment 14(a)(3)–2, referring to fees ''reasonably designed'' to reimburse creditor costs incurred ''in connection with obtaining'' appraisal and other valuation services. To clarify, the Bureau is revising comment 14(a)(3)–2 so its language more closely tracks ECOA section 701(e) (which refers to ''reasonable fees'' to reimburse appraisal costs, rather than fees that are

[62] An appraisal industry commenter objected to certain language in the Bureau's preamble, including the statement that appraisals could involve ''needless cost'' in certain transactions where other valuations could be used, and to the statement that broker price opinions and automated valuation models are ''equally appropriate'' for some transactions.

[63] *See, e.g.,* 12 CFR 323.3(a)(1) exempting real estate-related financial transactions with a transaction value of less than $250,000 from the FDIC's rule requiring FDIC-insured institutions to obtain an appraisal performed by a State certified or licensed appraiser for all real estate-related financial transactions.

[64] With respect to proposed § 1002.14(a)(3) more broadly, the comment suggesting the word ''reimbursement'' be used more consistently left unclear exactly how it would suggest the term be used.

[65] These other laws may include requirements applicable to estimates of loan fees provided at the time of application, limitations on changes to these fees in certain circumstances, prohibitions against charging for second appraisals in higher-risk-mortgage transactions involving ''flipping,'' and prohibitions against unfair, deceptive, and abusive acts and practices under applicable law. While one commenter requested additional clarification of what charges are prohibited by § 1002.14(a)(3), the Bureau believes that the phrase ''otherwise provided by law'' is intended to be open-ended, and calls for creditors to consider applicable laws when setting their fees. As noted in the proposal, the Bureau does not believe that ECOA section 701(e) calls for rate regulations.

''reasonably designed'' for this purpose) and to specifically indicate that section 14(a)(3) is not intended to prohibit recovery of AMC fees.

The final rule also adopts the prohibition in proposed § 1002.14(a)(3) against charging for providing a copy of an appraisal or other written valuation ''as required under the final rule.'' While industry commenters raised a question of whether creditors could charge for providing additional copies of the same appraisal or other written valuation, such as when the applicant requests them, the Bureau does not believe that the regulation is unclear on this point. The final rule, in § 1002.14(a)(1), requires only that the creditor provide ''a copy'' of each appraisal or other written valuation. The prohibition against charging for copies only applies to copies that are ''required under the final rule.'' Because the final rule does not require that creditors provide more than one copy, there is no suggestion in the final rule that creditors are prohibited from charging for duplicates or additional copies. If they do provide additional duplicate copies, it would not be pursuant to a requirement in the rule. The Bureau also does not believe the rule requires, as one commenter suggested, the tracking of mailing or copying costs and even their refund to the consumer to ensure they are not included in the interest rate previously set.[66]

To fully implement the prohibition in § 1002.14(a)(3) against charging for providing a copy of an appraisal or other written valuation, the Bureau also is amending the commentary to sample disclosure form C–9. Comment Appendix C–1–ii is revised to remove the suggestion that a creditor may add text to the disclosure notifying the applicant of the cost the applicant will be required to pay for a copy of the report.

The Bureau declines to add an exception in the final rule to the requirement to provide copies of appraisals and other written valuations where the applicant has not paid the fee for the appraisal or other written valuation. Section 1002.14(a)(2)(ii) of Regulation B currently calls for providing the copy after receipt of the request, the report, or reimbursement for the report, ''whichever is last to occur.'' As proposed, § 1002.14(a)(2) would no longer have based the timing of disclosure upon the receipt of payment. The Bureau believes this approach is consistent with the language of ECOA section 701(e) as amended. The statutory timing requirement concerning providing copies contains no reference to receipt of reimbursement for the valuation from the applicant. Moreover, ECOA section 701(e)(4) specifically states that ''notwithstanding'' the creditor's ability to charge a reasonable fee to reimburse the creditor's appraisal costs, the creditor ''shall provide'' the copy at no additional cost. The Bureau does not believe that conditioning the creditor's obligation to provide copies at no additional cost on the applicant's reimbursement of the costs of the appraisal or other written valuation would be consistent with legislative intent as expressed in ECOA section 701.

The Bureau understands the need for creditors to manage payment risks. The final rule does not affect the ability of creditors to request up-front payment from applicants before appraisals or other written valuations are ordered (which would protect creditors even if the application is withdrawn, incomplete, or denied), to collect payment at consummation or account opening, or to undertake other efforts to collect the fee if the transaction is not consummated or the account is not opened. The Bureau therefore declines to adopt this exception suggested by comments it received.

14(a)(4) Withdrawn, Denied, or Incomplete Applications

ECOA section 701(e)(1) requires providing copies of the appraisals or other written valuations ''whether the creditor grants or denies the applicant's request for credit or the application is incomplete or withdrawn.'' The Bureau therefore proposed in § 1002.14(a)(4) that the requirements of § 1002.14(a)(1) also apply whether credit is extended or denied or if the application is incomplete or withdrawn. Specifically, creditors would be required to provide copies of appraisals and other written valuations even in situations where an applicant provides only an incomplete application.

Public comments. Two national associations of creditors suggested that the Bureau use its adjustment authority under ECOA to eliminate the statutory requirement to provide copies of appraisals and other written valuations where an applicant withdraws from the application process before indicating an intent to proceed. These commenters argued that the valuation is not relevant to the withdrawing applicant, and providing a copy would impose an unnecessary cost.

Discussion. Dodd-Frank Act section 1474 amended ECOA section 701(e) to require providing copies of appraisals and other written valuations even in cases where the application is withdrawn. The statute did not distinguish between withdrawals that occur before or after declaring an intent to proceed with the transaction. While the commenter suggested the Bureau should exercise its exception authority in cases in which the application is withdrawn before the applicant expresses an intent to proceed, the Bureau is not persuaded there is a basis for doing so here. The ''intent to proceed'' standard governs whether fees can be charged to applicants under Regulation X, which implements RESPA, and not when applicants have a protected interest against discrimination under ECOA. The Bureau does not believe that the purpose of ECOA in preventing, detecting, and remedying discrimination would be served by providing such an exception. Under Regulation X, § 1024.7(a)(4), the intent to proceed comes after the applicant has received a good faith estimate (or a revised good faith estimate), which quotes loan terms to applicants and which could be based upon an appraisal or other written valuation. Indeed, in some cases the very reason that the consumer elects to withdraw the application may be the result of what the lender has said or done in response to the appraisal or other valuation, for example by changing the interest rate based on a lower-than-expected loan to value ratio. Therefore the text of § 1002.14(a)(4) is adopted as proposed.

14(a)(5) Copies in Electronic Form

The Bureau believes that it is appropriate to allow creditors to provide applicants with copies of appraisals and other written valuations in electronic form if the applicant consents to receiving the copies in such form. Accordingly, the Bureau proposed that § 1002.14(a)(5) permit copies of appraisals and other written valuations required by § 1002.14(a)(1) to be provided to the applicant in electronic form, subject to compliance with the consumer consent and other applicable provisions of the Electronic Signatures in Global and National Commerce Act (E-Sign Act) (15 U.S.C. 7001 *et seq.*).[67]

[66] As noted in comment 14(a)(3)–2, the prohibition against charging for copies is designed to prevent an increase of charges within a specific transaction based upon the copies that must be provided. Thus a creditor would be prohibited from imposing a line-item fee for providing copies, or from adjusting other line item fees based upon the copies that are provided (for example, increasing the points and fees in the closing statement above the amount specified in the loan estimate to account for costs of copies that are being provided).

[67] As noted in the proposal, § 1002.4(d)(2) of Regulation B currently provides that the disclosures

Continued

Public comments. Several industry commenters supported the option of consent-based electronic delivery. Two lenders suggested the E-Sign Act consent process is burdensome, and should not be required; one industry commenter suggested that the E-Sign Act consent process is important, however.

Discussion. The Bureau believes that application of the E-Sign Act to the electronic disclosure of copies of appraisals and other written valuations is appropriate, and the final rule maintains this condition. While one commenter noted that the appraisal is not a contract document, Section 101(a) of the E-Sign Act governing electronic signatures in contracts is not the provision at issue here. Rather, Section 101(c) of the E-Sign Act, 15 U.S.C. 7001(c), governs consent for provision of consumer disclosures by electronic means. The commenter therefore has not articulated a basis for treating copies of appraisals and other written valuations as falling outside the scope of Section 101(c). In any event, however, applying the E-Sign Act requirements to provision of copies of appraisals and other written valuations by electronic means would not force creditors to institute E-Sign Act compliance procedures. Creditors could simply choose not to provide the copies by electronic means.

The Bureau also notes that because the disclosure required by § 1002.14(a)(2) is a written disclosure required by Regulation B, § 1002.4(d)(2) will permit that disclosure to be provided electronically based upon a consent given in compliance with the E-Sign Act. There is no need to restate this point in a separate provision within § 1002.14. As discussed at the beginning of the section-by-section analysis above, the Bureau is revising the electronic disclosure provision in § 1002.4(d)(2), however, to ensure its exception can apply to the new notice required by § 1002.14(a)(2) of the final rule, which replaces the consumer notice required by existing § 1002.14(a)(2)(i). While this change was not proposed in the proposal, this revision is necessary to maintain the consistency of cross-references in Regulation B and its existing approach to electronic disclosure of the consumer notice required under § 1002.14. In particular, existing § 1002.4(d)(2) allows the creditor to provide written disclosures required by certain specified provisions of existing Regulation B, including existing § 1002.14(a)(2)(i), electronically without regard to consumer consent or provisions of the E-Sign Act, if the disclosure ''accompan[ies] an application accessed by the applicant in electronic form.'' The Bureau believes this cross-reference in § 1002.4(d)(2) to the notice requirement in § 1002.14(a)(2) should be maintained, for the same reasons the Board did not apply the E-Sign Act requirements to disclosures provided with the application.[68] In addition, creditors could choose to provide the notice as an accompanying disclosure with the application, which would, by definition, be provided within three business days of the application as required by this final rule.[69] Therefore, the cross-reference is being updated to reflect the citation to the disclosure provision in the final rule, § 1002.14(a)(2).

Removal of Exemption for Credit Unions

The Board's 1993 Final Rule on Providing Appraisal Reports (1993 Final Rule) provided in § 1002.14(b) that credit unions were exempt from the requirements in § 1002.14(a) to provide copies of appraisals upon request, if not provided routinely. *See* 58 FR 65657, 65660 (Dec. 16, 1993). In the 1993 Final Rule, the Board pointed to pre-existing NCUA regulations, and how they already required credit unions to provide copies of appraisals upon request.[70] The Board also cited the legislative history of the 1991 ECOA amendments, which indicated Congress was aware of these pre-existing regulations and thus did not intend to modify them.[71] Accordingly, the Board found it unnecessary to require under Regulation B what the NCUA already required under its own regulations.

Under today's version of the NCUA regulation, 12 CFR 701.31(c)(5), Federal credit unions are still required to make available to any requesting member/applicant a copy of the appraisal used in connection with that member's real estate-related loan application. However, as described above, the Dodd-Frank Act amendments to ECOA removed the prior provisions of section 701(e) and replaced them with requirements that were significantly broader in scope. Unlike the prior provisions of section 701(e), section 701(e) as amended requires creditors to provide copies of all valuations, and not only appraisals; section 701(e) also requires that creditors provide these copies automatically, rather than allowing them to be provided upon request. Thus amended section 701(e) guarantees that applicants will receive copies of valuations that are performed, including non-appraisal valuations, and regardless of whether applicants specifically request the copies. In addition, neither section 1474 of the Dodd-Frank Act nor its legislative history refers to an exception for credit unions subject to, and complying with, the provisions of the NCUA regulations relating to making appraisals available upon request. Accordingly, the Bureau proposed deleting the exemption for credit unions provided in § 1002.14(b).

Public comment. Most credit union commenters urged the Bureau to maintain the exemption for credit unions, suggesting, for example, that the existing rule (requiring disclosure on request) be maintained and that credit unions did not need to be covered by the new rule because they were not a cause of the financial crisis that the Dodd-Frank Act was intended to address. One of the commenters argued that the Bureau should maintain the

required to be provided in writing by Regulation B may be provided to the applicant in electronic form, subject to compliance with the consumer consent and other applicable provisions of the E-Sign Act. While § 1002.4(d)(2) refers to written ''disclosures'', the E-Sign Act also applies more broadly to ''information relating to a transaction'' that is required to be made available in writing. 15 U.S.C. 7001(c)(1). Thus the proposal sought to clarify that the requirements of the E-Sign Act also would apply to providing copies of appraisals and other written valuations.

[68] The Bureau notes that the Board adopted this exception to the requirements of the E-Sign Act for certain disclosures required in Regulation B in amendments to provide guidance on electronic delivery of disclosures. For the same reasons that the Board cited, the Bureau believes that permitting the disclosure required in § 1002.14(a)(2) to be provided without regard to the consumer consent or other provisions of the E-Sign Act when the disclosure accompanies an application the consumer accesses electronically eliminates a ''a potential significant burden on electronic commerce without increasing the risk of harm to consumers.'' 72 FR 63445, 63448 (Nov. 9, 2007).

[69] This option would not necessarily be available for all transactions. For example, if the 2012 TILA–RESPA Proposal is finalized as proposed, the appraisal notice will be required to be included in the integrated TILA–RESPA Loan Estimate. The exception under § 1002.4(d)(2) would not be triggered by a Loan Estimate disclosed after the application, rather than accompanying the application.

[70] *See* 12 CFR 701.31(c)(5), which currently provides:

Each Federal credit union shall make available, to any requesting member/applicant, a copy of the appraisal used in connection with that member's real estate-related loan application. The appraisal shall be available for a period of 25 months after the applicant has received notice from the Federal credit union of the action taken by the Federal credit union on the real estate-related loan application.

[71] S. Rept. 167, 102nd Cong., at 90 (1991). The Senate Report stated as follows: ''Regulations by the National Credit Union Administration (NCUA) currently require credit unions to make appraisals available without regard to who has paid for the appraisal;[] test[sic] this legislation is not intended to modify those NCUA regulations. Neither is the legislation intended to affect the current custom of many lenders routinely to provide copies of appraisal reports.''

exemption in order to allow the NCUA to amend its regulations to conform to section 701(e) of ECOA. Some of these commenters suggested the proposed rule would be burdensome, particularly when viewed in combination with the other rules being implemented under the Dodd-Frank Act. One credit union stated, however, that it understood the Bureau's proposed rationale for removing the exemption in Regulation B. An appraisal industry commenter also stated that it supported removing the exemption.

Discussion. As noted in the proposal, Congress did not exclude credit unions from the requirements of ECOA section 701(e), and the legislative history of the Dodd-Frank Act did not suggest Congress intended to exclude credit unions, unlike when Congress adopted the previous version of section 701(e) in 1991. Moreover, even assuming credit unions may have had a lesser role in precipitating the financial crisis to which the Dodd-Frank Act responded, the purposes of ECOA include preventing and remedying unlawful discrimination in credit transactions. By including the requirement to provide copies of appraisals and other written valuations in ECOA, Congress made the judgment that enhanced transparency of appraisals and other written valuations would further these purposes. In addition, applicants to credit unions have an equal interest in the protection and remedies afforded by ECOA as applicants to other creditors. Failure to apply the rule to credit unions would result in applicants to these creditors not having the same guarantees of receiving copies of appraisals and other written valuations promptly (regardless of whether they request them), or of receiving copies of non-appraisal valuations at all. In addition, the Bureau is not persuaded by the comments that the final rule implementing section 701(e) would impose a significant additional burden on creditors, as credit union commenters did not establish that credit unions do not follow the general industry practice of providing copies of appraisals to applicants in first lien transactions.[72] The Bureau therefore is not persuaded that the standards for exercising its exception authority are met, whether under section 703(a) of ECOA to effectuate the purposes of, or foster compliance with, ECOA or under section 1405(b) of the Dodd-Frank Act to protect the interests of consumers and the public.[73] Accordingly, the final rule does not include an exemption for credit unions.

14(b) Definitions

As discussed below, the Bureau proposed to define three terms in § 1002.14(b). The Bureau also requested comment on whether there are additional terms that should be defined for purposes of this rule and how best to define those terms in a manner consistent with ECOA section 701(e).

14(b)(1) Consummation

As discussed above, for clarity and to be consistent with other similar regulatory requirements under TILA and RESPA, the Bureau proposed that § 1002.14(a)(1) use the term ''consummation'' in place of the statutory term ''closing.'' The Bureau proposed to define the term ''consummation'' in § 1002.14(b)(1) as the time that a consumer becomes contractually obligated on a credit transaction. This definition mirrors the definition of the term provided in § 1026.2(a)(13) of Regulation Z.

The Bureau also proposed two comments to clarify the meaning of the term ''consummation.'' First, comment 14(b)(1)–1 was proposed to clarify that the question of when a contractual obligation on the consumer's part is created is a matter to be determined under applicable law; proposed § 1002.14 does not make this determination. A contractual commitment agreement, for example, that under applicable law binds the consumer to the credit terms would be consummation. Consummation, however, does not occur merely because the consumer has made some financial investment in the transaction (for example, by paying a nonrefundable fee) unless, of course, applicable law holds otherwise. Second, comment 14(b)(1)–2 was proposed to clarify that consummation does not occur when the consumer becomes contractually committed to a sale transaction, unless the consumer also becomes legally obligated to accept a particular credit arrangement.

Public comments. The Bureau received very few comments on this definition. One industry commenter suggested the term would be confusing in the case of a rescindable transaction, and also queried whether consummation would occur when the lender issues a loan commitment. One commenter suggested the term is not plain English.

Discussion. The lack of industry comments on use of the term ''consummation'' suggests that industry is familiar with the meaning of the term. Consummation is a term that is defined elsewhere in regulations and used throughout mortgage regulations. The Bureau believes it is appropriate to use here for consistency and precision for closed-end transactions, and that given its common usage confusion is unlikely.[74] In any event, for clarity, this final rule adopts the proposed comments 14(b)(1)–1 and 2 clarifying the meaning of ''consummation;'' this guidance mirrors longstanding guidance in Regulation Z.[75] Accordingly, the final rule thus maintains the definition of the term ''consummation'' as proposed.

14(b)(2) Dwelling

The Bureau proposed that § 1002.14(b)(2) retain the definition of the term ''dwelling'' in current § 1002.14(c). Specifically, § 1002.14(b)(2) proposed to define the term ''dwelling'' as a residential structure that contains one to four units whether or not that structure is attached to real property, and including but not limited to an individual condominium or cooperative unit, and a mobile or other manufactured home.

Public comment. Industry commenters asked the Bureau to clarify several aspects of the definition of ''dwelling.'' For example, several commenters asked the Bureau to clarify in the final rule whether the definition of ''dwelling'' refers only to an owner-occupied dwelling, or to any residential

[72] The Bureau also does not believe that the final rule implementing section 701(e) affects the ability of credit unions to comply with the existing NCUA regulations at 12 CFR 701.31(c)(5). Credit unions that comply with the final rule requiring disclosure of appraisals and other valuations to applicants also would be able to comply with existing NCUA regulations by maintaining appraisals on file for the specified time period for provision upon request.

[73] Despite commenter suggestions that the Bureau could wait to see if NCUA adopted its own rule, the Dodd-Frank Act does not suggest it is the responsibility of NCUA to issue such a rule under ECOA, backed by the remedies which ECOA provides. Section 1085 of the Dodd-Frank Act amended ECOA to transfer ECOA rulemaking authority (including authority under ECOA section 701(e)) to the Bureau. Section 1061 of the Dodd-Frank Act also transferred consumer financial protection functions of the NCUA to the Bureau. In any event, if the NCUA were to amend its rules in a manner consistent with section 701(e), the Bureau would review that regulation and consider any consequences that regulation could have on the application of this final rule to credit unions.

[74] Section 3(2)(C) of the Plain Writing Act of 2010 excludes regulations from the scope of its requirements. In any event, the term ''consummation'' need not be included in the disclosure applicants will receive under § 1002.14(a)(2) and is not included in the sample disclosure.

[75] The Bureau also does not agree with the comment suggesting that consummation could occur at the end of the rescission period. TILA specifically defines its rescission right as arising ''following the consummation of the transaction,'' 15 U.S.C. 1635(a), such that the existence of a rescission period after consummation under TILA would not affect the pre-consummation timing standards in this final rule.

dwelling regardless of the applicant's residence in the building. Several commenters in the manufactured housing industry also requested that the definition of ''dwelling'' exclude residential structures that are not attached to the real property, such as recreational vehicles and house boats, as well as manufactured homes when titled as chattel. Further, some industry commenter asked for clarification on whether the rule applies to commercial transactions. Some of these comments requested that the final rule exclude commercial transactions even when they involve a first lien on a dwelling. One commenter argued, however, that covering commercial transactions would promote education, knowledge, and creditor safety and soundness by ensuring applicants are aware of the appraisals and other valuations on which the credit decisions are based. In addition, some industry commenters requested clarification on whether the final rule would cover certain multiple residence situations involving a single lot, such as three four-unit buildings situated on a single land parcel and operated as one small 12-unit apartment complex. Finally, one commenter suggested the definition of ''dwelling'' be harmonized with the definition in Regulation C promulgated under the Home Mortgage Disclosure Act (HMDA), which is not limited to one-to-four-family structures, while another commenter suggested the definition be limited to single-family housing.

Discussion. The final rule does not exclude business credit when it is secured by a first lien on a dwelling because business credit is covered by ECOA and Regulation B. ECOA section 701(e) applies to a ''creditor'', a term that ECOA section 702(e) defines by reference to the term ''credit'' in section 702(d). Section 702(d) of ECOA does not limit the term ''credit'' to credit for personal, family, or household purposes, and Regulation B has long interpreted ''credit'' to include personal and ''business credit.'' *See* comment 1002.2(j)–1 (discussing definition of ''credit'' in § 1002.2(j));[76] § 1002.2(g) (definition of ''business credit'').[77] Thus, the final rule covers applications for business credit to be secured by a first lien on a dwelling.

The final rule adopts the definition of ''dwelling'' as proposed. When describing the transactions subject to section 701(e) of ECOA, Dodd-Frank Act section 1474 used the term ''dwelling'', which has been defined in § 1002.14(c) as follows: ''[T]he term dwelling means a residential structure that contains one to four units whether or not that structure is attached to real property. The term includes, but is not limited to, an individual condominium unit, and a mobile or other manufactured home.'' [78] Given that this definition was in place when Congress amended ECOA section 701(e) and used the term ''dwelling'' in specifying the scope of the requirement, the Bureau believes that it is appropriate to continue to use the existing definition of ''dwelling.''

The definition of ''dwelling'' in § 1002.14(c) requires that the unit be a ''residential structure'', but does not require that it be ''owner-occupied.'' As a result, the requirements of the final rule can apply to transactions involving one-to-four-unit residential structures that may be business or commercial in nature, including for investment purposes. Beyond this, whether a transaction meets the definition will depend on the facts and circumstances. Because transaction structures can vary widely, the Bureau does not believe it would be efficient or appropriate to try to address all such variations in the text of the rule or the commentary.[79]

The definition of ''dwelling'' in Regulation B, § 1002.14(c), currently includes a residential structure ''whether or not * * * attached to real property,'' and lists as an example a ''mobile or other manufactured home.'' Industry commenters reported that a significant number of consumers in the United States reside in manufactured homes. The Bureau does not believe the comments articulate a valid basis for a new exemption under Regulation B for manufactured homes that would otherwise meet the definition of ''dwelling.'' Whether an applicant has a right to receive a copy of an appraisal or other written valuation that has been performed should not turn on whether the residential structure is built on site or in a factory for later installation on site—particularly when such valuations can be done for these transactions.[80] The definition of ''dwelling'' in Regulation B is appropriately broad enough to encompass manufactured homes. The Bureau recognizes, however, that transactions involving manufactured homes will not always result in appraisals or other written valuations. This issue is taken into account in § 1002.14(b)(3) discussed below.

The final rule also provides clarification in response to comments by several industry trade associations that § 1002.14 should not apply to certain other structures, such as recreational vehicles or boats. Unlike manufactured homes, which are specifically enumerated examples of a ''dwelling'' in existing § 1002.14(c) and proposed § 1002.14(b)(2),[81] other structures such as boats and recreational vehicles are not enumerated as examples. Though boats and recreational vehicles may have residential uses in some cases, the fact that they are not expressly enumerated here in existing Regulation B suggests that, unlike manufactured homes, they are not exclusively residential by nature and are not always covered by the existing appraisal copy requirements at § 1002.14. Therefore,

[76] The comment provides that ''[u]nder Regulation B, a transaction is credit if there is a right to defer payment of a debt—regardless of whether the credit is for personal or commercial purposes, the number of installments required for repayment, or whether the transaction is subject to a finance charge.''

[77] Regulation B generally uses the term ''business credit'' where unique or different requirements are applied to business or commercial transactions. The final rule does not adopt special or different requirements, and therefore uniformly uses the term ''credit.''

[78] This definition also is similar to the definition of dwelling in Regulation C, which covers ''a residential structure (whether or not attached to real property) located in a state of the United States of America, the District of Columbia, or the Commonwealth of Puerto Rico. The term includes an individual condominium unit, cooperative unit, or mobile or manufactured home.'' 12 CFR 1003.2. The Bureau does not believe the Regulation C definition should be adopted for this rule, however. The Regulation C definition could broaden the scope of the final rule beyond one-to-four family dwellings, while it is unclear that ECOA section 701(e) as amended contemplated this result.

[79] With respect to the example raised by a creditor and two national creditor associations—three four-unit buildings operated as a 12-unit apartment complex, the text of the rule makes clear that a four-unit residential building would be a dwelling, but a 12-unit apartment complex is not. Thus a transaction secured by a four-unit residential building would be covered by the rule, but a transaction secured by the entire 12-unit apartment complex would not be. Because this question can be analyzed in a straightforward manner by reference to the text of the rule, the Bureau does not believe that further commentary is needed for this to be apparent. Similarly, the definition of ''dwelling'' refers to the example of an ''individual condominium or cooperative unit,'' but not to a cooperative building as a whole, even though such a building may contain several individual units.

[80] HUD standards for its Title I insurance program for manufactured homes, for example, provide valuation standards. U.S. Dep't of Hous. & Urban Dev., TI–481, *Changes to the Title I Manufactured Home Loan Program,* at App. 2–1, D (Apr. 2009) (requiring valuations that meet HUD standards for transactions involving existing manufactured homes); *id.* at App. 8–9, C (describing valuation standards for certain manufactured home transactions); U.S. Dep't of Hous. & Urban Dev., TI–437, *Appraisals of Manufactured Homes and Lots,* at 1–2 (Jan. 1996) (describing valuation standards for manufactured homes classified as personal property and manufactured home transactions involving real property). GSEs also have standard forms available on their Web sites, such as Fannie Mae Form 1004C and Freddie Mac Form 70B, for conducting appraisals of manufactured home transactions eligible for purchase by them.

[81] For a definition of ''manufactured home,'' *see also* 42 U.S.C. 5402(6) and related HUD regulations at 24 CFR 3280.2.

while the Bureau does not see a basis for removing ''manufactured homes'' from the list of enumerated examples of a dwelling in § 1002.14 (*see* existing §§ 1002.14(c) and 1002.13(a)(2)), there is a basis for analyzing boats and recreational vehicles differently.

In addition, even though Regulation Z commentary has long stated that boats and trailers can be dwellings and has not ruled out that recreational vehicles and campers also could be dwellings,[82] they are not covered by the 2013 Interagency Appraisals Final Rule under TILA section 129H. *See* Regulation Z, § 1026.35(c)(2)(iii). As noted above, the rules implementing ECOA section 701(e) and TILA section 129H allow for identical consumer disclosure concerning appraisals and require creditors to provide copies of appraisals to applicants. To the extent regulations implementing ECOA section 701(e) and TILA section 129H can be aligned, burden on creditors is reduced.

Accordingly, the Bureau is adopting comment 14(b)(2)–1 to confirm that the requirements of § 1002.14 in particular do not apply to transactions secured solely by motor vehicles as defined by 12 U.S.C. 5519(f)(1)—a term that includes boats, motor homes, recreational vehicles, and other vehicles, but not manufactured homes.[83] It is not clear that in amending section 701(e) of ECOA in the Dodd-Frank Act, Congress intended to provide a basis for requiring creditors to provide copies of valuations when selling motor vehicles used as residences. The legislative history for section 701(e) specifically refers to providing protections for ''mortgage applicants,'' for example.[84] ECOA section 701(e)(6) also lists examples of ''valuations'' that are used in the real estate context—broker price opinions, GSE values, and AVMs (a term which section 1473 of the Dodd-Frank Act defined within the context of Title XI of the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), a statute focused on ''real estate related transactions'', 12 U.S.C. 3331). To the extent any motor vehicle transactions otherwise could be subject to § 1002.14, the Bureau exercises its exception authority under ECOA section 703(a) to exclude them. As noted above, because the legislative history does not clearly suggest an intent to cover motor vehicle transactions, the exclusion will facilitate compliance by reducing regulatory uncertainty, and will be consistent with the purposes of section 701(e) of ECOA as reflected in the legislative history described above.

The Bureau did not, however, seek comment in the proposal on whether structures that are ''motor vehicles'' can be covered by or should be excluded from the scope of ECOA and Regulation B more broadly, including the information collection requirements of § 1002.13. This clarification in comment 14(b)(2)–1 is therefore limited to § 1002.14 and is not a pronouncement on whether boats, trailers, recreational vehicles, campers, or motor vehicles would otherwise fall within the definition of ''dwelling'' in other provisions of Regulation B.

14(b)(3) Valuation

ECOA section 701(e) refers to ''valuations,'' which it defines as ''any estimate of the value of a dwelling developed in connection with a creditor's decision to provide credit, including those values developed pursuant to a policy of a government sponsored enterprise or by an automated valuation model, a broker price opinion, or other methodology or mechanism.'' Accordingly, proposed § 1002.14(b)(3) would have defined the statutory term ''valuation'' as ''any estimate of the value of a dwelling developed in connection with a creditor's decision to provide credit.'' Comment 14(b)(3)–1 was proposed, based on current comment 14(c)–1, to provide the following list of examples of valuations, which included the three examples listed in the existing comment (which were examples of an ''appraisal report''), and added the three additional specific examples of ''valuations'' provided in ECOA section 701(e)(6):

- A report prepared by an appraiser (whether or not certified and licensed), including written comments and other documents submitted to the creditor in support of the appraiser's estimate or opinion of the property's value.
- A document prepared by the creditor's staff that assigns value to the property, if a third-party appraisal report has not been used.
- An internal review document reflecting that the creditor's valuation is different from a valuation in a third party's appraisal report (or different from valuations that are publicly available or valuations such as manufacturers' invoices for mobile homes).
- A value developed pursuant to a methodology or mechanism required by a government sponsored enterprise, including written comments and other documents submitted to the creditor in support of the estimate of the property's value.
- A value developed by an automated valuation model, including written comments and other documents submitted to the creditor in support of the estimate of the property's value.
- A broker price opinion prepared by a real estate broker, agent, or sales person, including written comments and other documents submitted to the creditor in support of the estimate of the property's value.

The proposal noted that the Bureau understands that many documents prepared in the course of a mortgage transaction may contain information regarding the value of a dwelling, but are not themselves an appraisal or other written valuation. The Bureau explained it does not believe that consumers would benefit from receiving duplicative pieces of information concerning appraisals and other written valuations. Additionally, the proposal noted that it is important that the rule make it simple for creditors to distinguish between documents that must be provided to applicants and those that are not required to be provided. Accordingly, the Bureau proposed comment 14(b)(3)–2, based on current comment 14(c)–2, to clarify that not all documents that discuss or restate a valuation of an applicant's property constitute ''appraisals or other written valuations'' for purposes § 1002.14(a)(1). For further clarification, the Bureau proposed that the comment provide the following list of examples of documents that discuss the valuation of the applicant's property but nonetheless are not appraisals or other written valuations for purposes of the requirement to provide a copy to applicants:

- Internal documents, that merely restate the estimated value of the dwelling contained in an appraisal or other written valuation being provided to the applicant.
- Governmental agency statements of appraised value that are publically available.

[82] *See* 12 CFR part 1026, Supp. I, comment 2(a)(19)–2. This comment states as follows: ''*Use as a residence.* Mobile homes, boats, and trailers are dwellings if they are in fact used as residences, just as are condominium and cooperative units. Recreational vehicles, campers, and the like not used as residences are not dwellings.''

[83] Under 12 U.S.C. 5519(f)(1), the term ''motor vehicle'' means—(A) Any self-propelled vehicle designed for transporting persons or property on a street, highway, or other road; (B) recreational boats and marine equipment; (C) motorcycles; (D) motor homes, recreational vehicle trailers, and slide-in campers, as those terms are defined in sections 571.3 and 575.103(d) of title 49, Code of Federal Regulations, or any successor thereto; and (E) other vehicles that are titled and sold through dealers.''

[84] H. Conf. Rept. 517, 111th Cong., at 877 (2010) (joint explanatory statement on Dodd-Frank Act); *see also* H. Rept. 94, 111th Cong., at 99 (2009) (discussing proposed revision to ECOA in H.R. 1728 that was later introduced in the Dodd-Frank Act, H.R. 4173).

• Valuations lists that are publically available (such as published sales prices or mortgage amounts, tax assessments, and retail price ranges) and valuations such as manufacturers' invoices for mobile homes.

Public Comments. As noted above, a few industry commenters argued that the definition of valuation generally should be limited to estimates that were relied upon or used by the creditor in making its credit decision.

An appraisal industry group suggested that the first proposed example of a valuation in proposed comment 14(b)(3)–1—a report prepared by an appraiser (whether or not licensed or certified)—should be modified to avoid suggesting that an unlicensed and uncertified appraiser is qualified.[85]

GSEs and other industry commenters commented on the fourth proposed valuation example, values developed pursuant to a GSE-required method or mechanism.[86] The GSE commenters noted that they allow but do not require that lenders use the GSE AVMs. A GSE commenter also noted that its AVM report could be provided to the borrower to satisfy the proposed rule. While some commenters expressed concern that GSE valuations were proprietary and creditors were forbidden from disclosing them, a large lending institution noted that the GSEs have reviewed and approved standard letters for the disclosure of GSE-developed valuations to consumers.

Several lending and appraisal industry groups commented on the fifth proposed valuation example—valuations developed by AVMs. Commenters noted that AVM reports can be highly technical, including special coding and information that would be confusing to consumers. Some of these commenters suggested that AVMs therefore be excluded from the definition of ''valuation.'' Other commenters requested additional clarification of how the term AVM is defined, such as whether it would include property inspection waivers (PIW), property inspection alternatives (PIA), Desktop Underwriter (DU)®, and Loan Prospector (LP)® reports. A few commenters suggested that the property inspection reports (PIPs) that may accompany some AVMs should be excluded from the definition of ''valuation.'' On the other hand, an appraisal industry commenter suggested including PIPs accompanying AVMs.

More broadly, a significant number of industry commenters strongly objected to the inclusion, in the first, fourth, fifth, and sixth proposed valuation examples, of ''written comments and other documents submitted to the creditor in support of'' the estimate. These commenters generally believed this language exceeded the statutory definition of the term ''valuation'' in section 701(e)(6) of ECOA, and argued that the language was vague and would expose them to substantial uncertainty as to what they would need to provide to applicants in a given transaction. Some commenters believed this wording could trigger time consuming and costly internal discovery by creditors and valuation preparers to search within and outside the credit institution for all written correspondence and other documents pertaining to the valuation, including reviews by AMCs, internal reviews, and evaluations of appraisal reports, some of which may be privileged or proprietary, and other materials. Some commenters also noted this language could result in burdensome disclosures to consumers who would be confused by voluminous information including background materials.

Industry commenters requested clarifications of and additions to the list of examples of documents that are not valuations. Manufactured housing industry commenters strongly supported the third proposed example excluding manufacturers' invoices for mobile homes, but suggested that the term ''mobile home'' is outdated and the term ''manufactured home'' should be used instead, consistent with industry usage and regulations of the Department of Housing and Urban Development (HUD). These comments also requested that the documents reflecting the ''maximum loan amount'' for manufactured homes be excluded, because they may reveal manufacturer pricing information.

Other commenters suggested that the list of examples of documents that are not valuations include the following: quality checks, fraud checks, internal reviews of valuations such as appraisal reviews, technical background data used by AVMs, and other ancillary documents developed for use by the appraiser or underwriter. Some commenters were concerned that some documents meeting the definition of valuation would be proprietary or reflect proprietary information. One industry commenter also was unsure whether a document integrating multiple publicly-available valuations would itself be a valuation. Finally, as discussed above, several industry commenters requested clarification that preliminary, draft, or other non-final documents be excluded.

Discussion. The Bureau is finalizing the definition of valuation in § 1002.14(b)(3) as proposed, with one technical change. In the proposal, the phrases ''developed in connection with an application for credit'' in the description of the requirement in § 1002.14(a)(1) regarding the materials that must be provided, and the phrase ''developed in connection with a creditor's decision to provide credit'' in the definition of valuation in § 1002.14(b)(3), were taken directly from the text of ECOA sections 701(e)(1) and (6) respectively. The Bureau does not believe that Congress intended these phrases to have different meanings. As a practical matter, many appraisals or other written valuations developed in connection with an application for credit will be a valuation developed in connection with a creditor's decision to provide credit and vice versa. However, using different terms in the rule could suggest there may be circumstances in which a valuation falls into one category, but not another. To facilitate compliance by eliminating uncertainty and to ensure the final rule gives full effect to section 701(e)(1), which is controlling as to the materials that must be provided to applicants, the Bureau interprets section 701(e)(6) consistently with 701(e)(1), and to the extent necessary is exercising its authority under ECOA section 703(a), to use the phrase ''developed in connection with an application for credit'' in the definition of ''valuation'' in § 1002.14(b)(3).

The final rule also makes a number of clarifying revisions to the commentary. As noted earlier, comment 14(a)(1)–7 is being added to the final rule to clarify that drafts or other non-final materials need not be provided if they have been superseded by later versions. In addition, as discussed below, the final rule incorporates several revisions to proposed comment 14(b)(3)–1 and proposed comment 14(b)(3)–2 (which is renumbered as comment 14(b)(3)–3), and adds a new comment 14(b)(3)–2. These revisions address certain additional concerns of commenters regarding the materials that must be provided to applicants.[87]

[85] An appraisal industry group also noted that the sixth proposed valuation example—broker price opinion—should clarify that they would not necessarily be permitted to be used in the credit transaction.

[86] In addition, a GSE commenter indicated that one of its tools does not communicate a ''value'' to the creditor.

[87] Comments 14(b)(3)–1 and 2 in the final rule provide a list of examples of documents that are valuations subject to the copy requirement, and comment 14(b)(3)–3 provides a list of documents that are not valuations subject to the copy requirement. As these comments note, these lists are not exclusive. The Bureau may issue guidance

The list of examples of valuations in comment 14(b)(3)–1 has been revised to eliminate the phrase ''written comments and other documents submitted to the creditor in support of'' the estimate. The Bureau believes that the list of materials that must be provided will be easier for creditors to understand if it refers simply to the reports themselves. The Bureau notes that this phrase (''written comments and other documents'') is not explicitly provided for in the definition of ''valuation'' in ECOA section 701(e)(6), and a number of commenters suggested that the phrase may be susceptible to uncertainty that could lead to overburdening creditors and consumers with the disclosure of information that is background in nature. The Bureau further notes that, in the absence of a definition of ''appraisal'' within ECOA, a 1993 amendment to the definition of an appraisal report in the commentary to Regulation B (58 FR 65658, 65659) had included this phrase ''written comments and other documents.'' In light of the inclusion in section 701(e) of ECOA of a definition of ''valuation'' that is broad enough to include appraisal reports, and the comments received, the Bureau does not believe a general reference to ancillary and supplementary information is useful to include in the list. Instead, the Bureau has added comment 14(b)(3)–2 in the final rule to clarify that the term ''valuation'' includes any attachments or exhibits that are part of an integrated valuation report. The Bureau believes that this comment is clearer, more specific, and addresses the commenters' concerns over uncertainty in the meaning of the phrase ''written comments and other documents.'' Under this comment in the final rule, for example, if a creditor receives an AVM report that has a list of comparable properties included as an exhibit or an attachment, then a copy of this exhibit or attachment would need to be provided. This comment therefore should ensure that consumers receive a copy of the complete, integrated report, without being distracted or burdened by additional ancillary information that falls outside the four corners of the report. Comment 14(b)(3)–1 also clarifies, however, that the list of examples is not exhaustive. Ultimately, the definition of ''valuation'' in § 1002.14(b)(3) governs.

For clarity and consistency across the examples in the final rule, the Bureau has revised the second proposed example to make clear that an internal creditor valuation must be disclosed, regardless of whether a third-party appraisal report is prepared. As a result of this change, the third proposed example—internal review documents reflecting the creditor valuation—was removed as largely duplicative. This deletion also addresses industry commenters' concerns that internal review documents, such as quality checks, fraud checks, automated underwriting determinations that do not estimate the value of the dwelling (such as certain GSE tools that simply suggest another valuation is excessive), or expressions of criticism of a valuation, should not be treated as themselves being valuations.

In response to GSE comments that they do not ''require'' use of their valuation methods, the Bureau has revised the example relating to GSE valuations to delete the word ''required'', which also is not used in the statute. The statute simply refers to values developed ''pursuant to a policy of a government sponsored enterprise.'' To provide additional guidance, this example in the comment now refers to GSE-approved forms for disclosing to consumers values developed pursuant to proprietary GSE mechanisms and methodologies.[88] This revision also should help to clarify the type of GSE automated tools whose output would be considered valuations.

The Bureau is finalizing inclusion of valuations developed by AVMs in the list of examples because they are included in the statutory list of valuation types in section 701(e)(6). The Bureau does not believe that the potential for AVM valuations to be coded or difficult for some consumers to understand is a basis for excluding them from the disclosure requirement. Consistent with the purpose of ECOA section 701(e) and ECOA more broadly, if an AVM develops a valuation in connection with the application that is provided to the creditor, then the creditor has a duty under the final rule to disclose a copy to the applicant. While some AVMs may use proprietary methods, the final rule does not require the disclosure of these methods *per se;* rather, the final rule requires disclosure of the written valuations developed by the AVMs which are provided to the creditors.[89] That is, the revised list of examples focuses on the report generated by the AVM to estimate the property's value, as opposed to the AVM methodology itself. Because AVM providers have control over such output, it should be within their control to ensure such output does not reveal proprietary information. Similarly, to the extent AVM reports are complex and coded, and creditors wish to voluntarily educate consumers, the creditors may provide additional explanatory information to the applicant at the time the AVM report is provided or request that the AVM generate such information. The rule does not require that creditors do so, however.

The Bureau also does not believe it would be appropriate to define the term ''automated valuation model'' in comment 14(b)(3)–1. When in receipt of a particular computer-generated report that may provide an estimate of the value of the dwelling, the creditor ultimately must make its own judgment of whether that report meets the definition of valuation in § 1002.14(b)(3). The final rule cannot foresee all the types of computer-generated reports that might include valuations. Moreover, comment 14(b)(3)–1 is merely intended as a list of examples of valuations. In addition, section 1473 of the Dodd-Frank Act amends a different statute—FIRREA—to define the term ''automated valuation model'' for purposes of that statute as ''any computerized model'' used to determine the value of a dwelling that secures a mortgage. That definition would be implemented by a separate inter-agency rulemaking.

Further, the Bureau does not believe that changes to the text of the regulation or commentary are needed to address the appraisal industry comments on the references to appraisers ''whether or not licensed or certified'' and to broker price opinions in the list of examples of valuations. The final rule does not regulate, or purport to regulate, the use of valuations such as broker price opinions by creditors. By referring to an example of a valuation, the final rule also does not suggest such a valuation would be permitted in any specific transaction, or that the person preparing such a valuation would be qualified.

The list of examples that do not qualify as valuations, finalized in comment 14(b)(3)–3, is revised to refer to a manufacturer's invoice for a ''manufactured home'' instead of a ''mobile home,'' consistent with the comment indicating that the term

from time to time to identify other examples for either list.

[88] This revision also is intended to focus this example on GSE valuation methods, and to distinguish this example from appraisals and other written valuations prepared by other third parties.

[89] Similarly, one commenter expressed concern that the proposed rule could require disclosure of documents in the possession of third parties other than the creditor. Yet the final rule does not apply to persons who are not creditors within the meaning of Regulation B, § 1002.2(l), and thus does not impose any obligation on a creditor to compel a third party to provide a copy of such documentation to the applicant.

''manufactured home'' is current industry usage.[90] Removing the reference to ''mobile home'' in this example also aligns with the exclusion of motor vehicles from the scope of the final rule.

The Bureau has considered the observations from manufactured housing industry commenters that data from the manufacturers' invoice for manufactured homes is sometimes included as a factor in the lender's calculation of the loan amount or maximum loan amount. For example, two industry commenters pointed to HUD Title I insurance underwriting criteria, under which the maximum Title I insurable loan amount for manufactured housing loans for new homes is based, in part, upon the manufacturer invoice amount. *See* HUD, TI–481, App. 2 at 3–4 (Apr. 2009). The comments did not provide information that would clearly establish a basis for categorically determining that loan amounts, maximum loan amounts, or loan-to-value calculations are not valuations under the final rule, however. These creditor calculations, if they would otherwise be valuations, would not lose such status merely by taking into account manufacturer invoice information. Indeed, the comments did not provide a rationale for why an applicant should be barred from viewing a valuation that contains manufacturer invoice data, if the creditor has received information from that invoice and used it in a valuation.

The list of examples that would not be covered by the rule also is revised to clarify that property inspection reports are not valuations, if they do not provide an estimate or opinion of the property's value and are not used in the development of such an estimate or opinion. This example is added to address several comments seeking clarification about a variety of property reports that may be provided in the underwriting process.

Finally, the comment clarifies that the list is not exhaustive. Again, the definition of ''valuation'' in § 1002.14(b)(3) governs. This serves to emphasize that the commentary cannot exhaustively catalog all of the types of documents that might or might not fit the definition of ''valuation.'' The final rule seeks to address those comments the Bureau believes point to the most common types of documents that may raise the most significant questions under the final rule.

[90] The phrase ''mobile or other manufactured home'' is retained in the definition of ''dwelling'' in § 1002.14(b)(2), however, to ensure internal consistency with the other definition of ''dwelling'' in Regulation B at § 1002.13(a)(2).

VI. Effective Date

This final rule is effective on January 18, 2014. The Bureau requested comment on the effective date of the final rule, particularly given the likelihood that the TILA–RESPA Loan Estimate containing the ECOA appraisal disclosure would not be finalized on the same timeline as this final rule. These comments and the Bureau's consideration of them are described below. As discussed above in part III, the Bureau believes that this effective date is consistent with the timeframes established in section 1400(c) of the Dodd-Frank Act and, on balance, will facilitate the implementation of the rules' overlapping provisions, while also affording creditors sufficient time to implement the more complex or resource-intensive new requirements.

A. Public Comments

Many industry commenters suggested that the effective date of the rule, or at least the disclosure requirement, should be delayed at least until the integrated TILA–RESPA Loan Estimate is finalized by the Bureau and the associated TILA–RESPA rule takes effect. One large lending institution suggested that the final ECOA rule take effect 12 months after the effective date for other rules under the Dodd-Frank Act that had mandatory statutory deadlines. Two industry group commenters suggested that the Bureau seek ways to avoid staggered effective dates of these rules, which in their view would be wasteful because it would require that lenders update their systems twice—once for the ECOA rule, and then again when the TILA–RESPA Loan Estimate takes effect.

Other commenters supported the use of a specific time period to set the rule's effective date, whether late 2013, 12 months, 18–24 months, or two years. A GSE also suggested that the rule take effect after 2013, to avoid interfering with home modification and refinance programs scheduled to end by late 2013 so that resources currently used to support the GSE-administered refinance and modification programs do not have to be diverted to systems and process changes that would in any event be short-lived.[91]

B. Discussion

The final rule will be effective on January 18, 2014. Thus, the final rule applies to loans to be secured by first liens on dwellings for which an application is received by the creditor on or after January 18, 2014.

The Bureau believes this transition period will provide sufficient time for creditors to make changes to their appraisal disclosures and their practices for providing copies of appraisals and other written valuations. The Bureau does not believe a later effective date, such as 18 or 24 months after issuance of this final rule, is necessary. Appraisal disclosures are already required by Regulation B and provided by creditors, the final rule allows for creditors to continue to make these disclosures electronically (even without compliance with the E-Sign Act if they are provided as an accompaniment to application documents), and creditors should not need to undertake complex dynamic systems programming to update this disclosure. In addition, copies of appraisals already are provided to applicants as a routine practice in most transactions covered by the final rule. While providing copies of valuations other than appraisals may be new in some transactions, the Bureau believes 12 months is sufficient time for creditors to prepare to include these with other materials (such as copies of appraisals) that already are provided to applicants as a routine practice in first lien transactions.[92] In addition, as noted in the proposal, the Bureau believes it is important that consumers begin to receive disclosures with information on their new rights under ECOA with respect to appraisals.

Further, if the effective date of the ECOA rule were delayed more than 12 months, then it would take effect after the 2013 Interagency Appraisals Final Rule under TILA section 129H, which must take effect within 12 months after its issuance pursuant to section 1400(c)(1)(B) of the Dodd-Frank Act. Because these rules under ECOA section 701(e) and TILA section 129H cover a similar subject matter (appraisals), with harmonized disclosure requirements, relating to an overlapping set of transactions (loans secured by first liens on dwellings), the Bureau believes it is important for these rules to take effect at the same time. The Bureau believes that staggered effective dates for the ECOA and TILA rules could increase complexity and burden rather than ease compliance.

[91] The GSE also requested further delayed implementation, in case these programs are extended very close to or after their expiration date at the end of 2013.

[92] Even if GSE refinance or modification programs are extended very shortly at or after the end of 2013, and the GSEs elected not to prepare to implement this final rule until that time, this effective date would still leave a few weeks to prepare to provide a short appraisals disclosure to consumers who file new applications and to provide copies of appraisals and other valuations to consumers.

As noted above, commenters raised concerns over the potential cost or burden of phased compliance, first with an ECOA disclosure requirement, and second with a rule on integrated TILA–RESPA disclosures. The Bureau does not believe, however, that it is appropriate to delay the consumer protections mandated by section 1474 of the Dodd-Frank Act for the 2012 TILA–RESPA Proposal, which would not even apply to some transactions covered by the ECOA Appraisals Rule. *See* 77 FR 51116 (Aug. 23, 2012). The disclosure required by the final rule will provide consumers with important information about their rights under ECOA. In addition, for transactions covered by the ECOA Appraisals Rule that also would be covered by the Bureau's 2012 TILA–RESPA Proposal, the Bureau does not believe it would significantly increase burden to set an earlier effective date for the ECOA Appraisals Rule. Under the 2012 TILA–RESPA Proposal, creditors in these transactions could simply adopt a TILA–RESPA Loan Estimate that includes the appraisals disclosure and therefore satisfies the ECOA Appraisals Rule.

VII. Dodd-Frank Act Section 1022(b)(2) Analysis

In developing the final rule, the Bureau has considered potential benefits, costs, and impacts.[93] The proposal set forth a preliminary analysis of these effects, and the Bureau requested comments and received some comments on this topic. In addition, the Bureau has consulted, or offered to consult with, the prudential regulators, FHFA, HUD, and the Federal Trade Commission (FTC), including regarding consistency with any prudential, market, or systemic objectives administered by such agencies.

The final rule amends Regulation B, which implements ECOA, and the official interpretations to the regulation, which interpret and clarify the requirements of Regulation B. The revisions to Regulation B implement an ECOA amendment concerning appraisals and other valuations that was enacted as part of the Dodd-Frank Act. In general, the revisions to Regulation B require creditors to provide a free copy of each appraisal and other written valuation developed in connection with an application for a loan to be secured by a first lien on a dwelling. The final rule also requires creditors to notify applicants in writing of the right to receive a copy of each written appraisal at no additional cost.

The amendment to ECOA section 701(e) is self-effectuating, and the Dodd-Frank Act does not require the Bureau to adopt a regulation to implement these amendments. Thus, many costs and benefits of the final rule considered below would arise largely or entirely from the statute, not from the final rule. The final rule would provide substantial benefits compared to allowing the amendment to ECOA section 701(e) to take effect alone. These benefits arise because the final rule clarifies parts of the statute that call for interpretation, such as the definition of ''valuation'' in section 701(e)(6), the provision governing reimbursement of the creditor for certain costs in section 701(e)(3), and the timing requirement for providing copies of appraisals and other written valuations in section 701(e)(1). Greater clarity on these issues should reduce the compliance burdens on covered persons by reducing costs for attorneys and compliance officers as well as potential costs of over-compliance and unnecessary litigation. In this light, the costs that the regulation would impose beyond those imposed by the statute itself are likely to be at most minimal.

Section 1022 permits the Bureau to consider the benefits, costs, and impacts of the final regulation solely compared to the state of the world in which the statute takes effect without an implementing regulation. To provide the public better information about the benefits and costs of the statute, however, the Bureau has chosen to consider the benefits, costs, and impacts of the major provisions of the final rule against a pre-statutory baseline (*i.e.,* the benefits, costs, and impacts of the relevant provisions of the Dodd-Frank Act and the regulation combined).[94]

Section 1022 of the Dodd-Frank Act requires that the Bureau, in adopting the rule, consider potential benefits and costs to consumers and covered persons resulting from the rule, including the potential reduction of access by consumers to consumer financial products or services resulting from the rule, as noted above; it also requires the Bureau to consider the impact of its rules on covered persons described in section 1026 and the impact on consumers in rural areas. These potential benefits and costs, and these impacts, however, are not generally susceptible to particularized or definitive calculation in connection with this rule. The incidence and scope of such potential benefits and costs, and such impacts, will be influenced very substantially by economic cycles, market developments, and business and consumer choices that are substantially independent from adoption of the rule. No commenter has advanced data or methodology that it claims would enable precise calculation of these benefits, costs, or impacts.

In considering the relevant potential benefits, costs, and impacts, the Bureau has utilized the available data discussed in this preamble, where the Bureau has found it informative, and applied its knowledge and expertise concerning consumer financial markets, potential business and consumer choices, and economic analyses that it regards as most reliable and helpful, to consider the relevant potential benefits and costs, and relevant impacts. The data relied upon by the Bureau also includes the public comment record established by the proposed rule. The Bureau notes, however, that for some aspects of this analysis, in particular with respect to the benefits of the rule, there are limited data available with which to quantify the potential impacts of the final rule. In light of these data limitations, the analysis below generally provides a qualitative discussion of the benefits of the final rule. General economic principles, together with the limited data that are available, provide insight into these benefits. Where possible, the Bureau has made quantitative estimates based on these principles and the data that are available; these estimates are primarily with regard to the costs of the rule. For the reasons stated in this preamble, the Bureau considers that the rule as adopted faithfully implements the purposes and objectives of Congress in the statute. Based on each and all of these considerations, the Bureau has concluded that the rule is appropriate as an implementation of the Dodd-Frank Act.

The primary source of data used in this analysis is data collected under the Home Mortgage Disclosure Act (HMDA).[95] Because the latest complete

[93] Specifically, section 1022(b)(2)(A) calls for the Bureau to consider the potential benefits and costs of a regulation to consumers and covered persons, including the potential reduction of access by consumers to consumer financial products or services; the impact on depository institutions and credit unions with $10 billion or less in total assets as described in section 1026 of the Act; and the impact on consumers in rural areas.

[94] The Bureau has discretion in any rulemaking to choose an appropriate scope of analysis with respect to potential benefits and costs and an appropriate baseline. The Bureau, as a matter of discretion, has chosen to describe a broader range of potential effects to inform the rulemaking more fully.

[95] The Home Mortgage Disclosure Act (HMDA), enacted by Congress in 1975, as implemented by the Bureau's Regulation C requires lending institutions annually to report public loan-level data regarding mortgage originations. For more information, see *http://www.ffiec.gov/hmda.* It should be noted that not all mortgage lenders report

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data set available is for loans made in calendar year 2011, the empirical analysis generally uses the 2011 market as the baseline. Data from fourth quarter 2011 Reports of Condition and Income filed by federally-regulated banks and thrifts (Call Reports),[96] fourth quarter 2011 credit union call reports from the NCUA, and de-identified data from the Nationwide Mortgage Licensing System (NMLS) Mortgage Call Reports (MCR) [97] for the fourth quarter of 2011 were also used to identify financial institutions and their characteristics. The unit of observation in this analysis is the entity: If there are multiple subsidiaries of a parent company, then their originations are summed and revenues are total revenues for all subsidiaries.

In addition, the Bureau notes that Regulation B generally applies to open-end credit and business or commercial credit; accordingly, the final rule also applies to these types of credit to the extent they are secured by a first lien on a dwelling. Calculations from the Experian Oliver-Wyman analysis of credit bureau data in the Q3 2012 Market Intelligence Reports [98] were used to estimate the number of home equity lines of credit (HELOCs) originated in 2011, and the Survey of Consumer Finances (SCF) was used to calculate the proportion of HELOCs that are first liens.[99] Reverse mortgages are believed to be predominantly first liens; counts of reverse mortgages are calculated from home equity conversion mortgages (HECM) in the HUD HECM Endorsement Summary Report.[100]

Several comments from large and small lending institutions indicated it is standard practice for lenders in first lien residential real estate transactions to provide consumers with copies of appraisals performed. One lending institution stated its belief this is not a widespread industry practice, however. The comments did not provide data on the extent to which other valuations are conducted in first lien transactions, and also did not provide data on the extent to which creditors provide applicants with copies of valuations other than appraisal reports under current lending practices.[101] As discussed below, one commenter criticized the proposal's estimate of $1.80 as the average increase in per-loan cost due to the rule.

A large lending institution reported that in one month in 2012, more than 2,000 appraisals it ordered were revised to correct misspellings or clerical errors. This information was provided to illustrate challenges creditors could face if prohibited from making minor, non-substantive corrections to valuations and appraisals within three days of closing, after the time frame in which copies should have been provided to the applicant absent a waiver.

As discussed and addressed throughout this preamble, other commenters expressed general concerns about the burden of various aspects of the proposed rule. The Bureau has taken these comments into account in developing its final rule and in its analysis below.

A. Potential Benefits and Costs to Covered Persons and Consumers

Consumers. Because the final regulation requires creditors to deliver copies of written valuations, including appraisals, to consumers and creditors are explicitly prohibited from charging consumers for these copies, consumers do not bear any direct costs from the rule. As noted above and discussed further below, outreach indicated and GSE standards corroborated that it is standard practice for industry to provide copies of appraisals to applicants in first lien transactions that are consummated. Consumers therefore currently benefit from this industry practice already. The final rule provides a marginal increase in the number of transactions in which consumers will receive appraisals, and also ensures they will receive copies of other types of valuations (including in transactions where no appraisals are performed).

Providing a free copy of any valuation consumers do not already receive provides consumers with details about the valuation and, in some cases, additional information on the condition of the property. Although consumers may receive some of this information from a home inspection or from an appraisal they would otherwise receive already under standard industry practice, each valuation provides the consumer with another independent evaluation. To the extent it would not already be provided to them, this detailed information may be particularly valuable to the consumer in a purchase transaction when the estimated value is less than their offer.[102] In addition, consumers in transactions where appraisals are not conducted may not currently receive any information about the valuations developed in connection with their application. The final rule would therefore provide them with new information that may help them make decisions about their mortgage borrowing.

The final rule changes the consumer's right under Regulation B to obtain a copy from one where the consumer must request the copy to one where the copy is given as the default. Nonetheless, as noted above, it is standard industry practice to provide copies of appraisals in first lien transactions that are consummated. Thus the rule may result in more consumers obtaining copies of written appraisals in transactions that are not consummated because, despite low

HMDA data. The HMDA data capture roughly 90–95 percent of lending by the Federal Housing Administration and 75–85 percent of other first-lien home loans, in both cases including first liens on manufactured homes (transactions which also are subject to the final rule). U.S. Dep't of Hous. & Urban Dev., Office of Policy Development and Research, *''A Look at the FHA's Evolving Market Shares by Race and Ethnicity,''* U.S. Housing Market Conditions (May 2011), at 6–12. Depository institutions (including credit unions) with assets less than $40 million (in 2011), for example, and those with branches exclusively in non-metropolitan areas and those that make no home purchase loan or loan refinancing a home purchase loan secured by a first lien on a dwelling are not required to report under HMDA. Reporting requirements for non-depository institutions depend on several factors, including whether the company made fewer than 100 home purchase loans or refinancings of home purchase loans, the dollar volume of mortgage lending as share of total lending, and whether the institution had at least five applications, originations, or purchased loans from metropolitan areas. Robert B. Avery et al., *The Mortgage Market in 2011: Highlights from the Data Reported under the Home Mortgage Disclosure Act,* 98 Fed. Res. Bull. (Fed. Res. Sys.), Dec. 2012, n.6.

[96] Every national bank, State member bank, and insured nonmember bank is required by its primary Federal regulator to file consolidated Reports of Condition and Income, also known as Call Report data, for each quarter as of the close of business on the last day of each calendar quarter (the report date). The specific reporting requirements depend upon the size of the bank and whether it has any foreign offices. For more information, see *http://www2.fdic.gov/call_tfr_rpts/.*

[97] The NMLS is a national registry of non-depository financial institutions including mortgage loan originators. Portions of the registration information are public. The Mortgage Call Report data are reported at the institution level and include information on the number and dollar amount of loans originated, the number and dollar amount of loans brokered.

[98] Q3 2012 Experian-Oliver Wyman Market Intelligence Report. More information about the Experian-Oliver Wyman quarterly Market Intelligence Report is available at *http://www.marketintelligencereports.com.*

[99] The Bureau calculates that 26 percent of HELOCs are first liens from the 2010 SCF.

[100] Monthly HUD HECM Endorsement Summary reports are available at *http://www.hud.gov/pub/chums/f17fvc/hecm.cfm.* The non-HECM market for reverse mortgages has all but disappeared in recent years, so the Bureau believes the HECM count provides a reasonable estimate of reverse mortgage volume.

[101] One commenter stated that GSEs charge $50 to generate a report from their proprietary valuation tools. It was not clear from this comment that GSEs would impose additional charges for creditors to disclose the valuation results to consumers. GSEs did not mention any such charges in their comments.

[102] The value of the information may vary depending on when in the home purchase and loan origination process the consumer receives the information.

transaction costs, there is evidence that default rules can have significant effects on outcomes in various settings.[103] Consumers who previously may have requested copies of appraisals in the absence of the amendment save the time and effort required to make requests.

For those applicants who would not already receive a copy of an appraisal or other written valuation under existing practice, having a copy of any professional appraisal or other written valuation that is conducted as a point of reference may help them to gain a better understanding of the home's value and improve overall market efficiency, relative to the case where the applicant has less information about the value of the property.[104] Individual consumers engage in real estate transactions infrequently, and because the expertise to value real estate is costly consumers often rely on real estate agents and list prices to make price determinations. These methods may not lead a consumer to an accurate valuation of a property. For example, there is evidence that real estate agents sell their own homes for significantly more than other similar homes, which suggests that other sellers may not accurately price the homes that they are selling.[105] Other research, conducted in a laboratory setting, provides evidence that individuals are sensitive to anchor values when estimating home prices.[106] In such cases, an independent signal of the value of the home should benefit the consumer.

Although the Bureau has not received comments from consumers on the proposed rule indicating any concerns, the Bureau believes that some consumers may not be interested in receiving copies of appraisals or other written valuations. While copies of appraisals are routinely provided in first lien transactions that are consummated, it is unclear that copies of other types of valuations are provided. For these consumers, the additional information received in copies of valuations may be unwelcome, or potentially distract their attention from other disclosures that are received shortly before consummation or account opening. The final rule seeks to reduce the volume of unnecessary information, by clarifying the list of examples of ''valuations'' and that multiple versions of the same valuation need not be provided so long as the timing requirements of the regulation are satisfied.

In addition, the costs of the final rule may be indirectly passed on to consumers through very small increases in the cost of credit, largely associated with the costs of mailing copies to consumers who have not consented to receive them electronically under the E-Sign Act. Creditors also could charge for valuations—though this is not a consequence of the rule because creditors could charge for valuations now. These costs are discussed further below.

Covered Persons. In the context of the final rule, ''covered persons'' includes depository institutions such as banks, credit unions, and thrifts, as well as non-depository creditors such as IMBs. The Bureau estimates that, of the roughly 14,700 depository institutions, about 11,400 originate mortgage loans. Another 2,800 non-depository institutions engage in real estate credit, based on data from the NMLS MCR. The final rule codifies the common practice of sending copies of all written appraisals to consumers who obtain loans secured by a first lien on a dwelling. In outreach to creditors prior to the proposal, all respondents reported providing copies of written appraisals to borrowers as a matter of course if a first lien loan is originated.[107] This practice also aligns with pre-existing requirements of certain GSEs to provide copies of appraisals promptly and no later than three business days before closing, as discussed in the section-by-section analysis above. These GSEs participate in a substantial portion of first lien transactions each year. In addition, the final rule requires that copies of other written valuations be provided to the applicant, and that copies of written appraisals be sent in the event that an application is received but does not result in a loan being originated. The final rule prohibits creditors from charging consumers for these copies. The final rule does, however, eliminate the cost of responding to individual requests for copies of an appraisal on an ad hoc basis, which is currently required under Regulation B, § 1002.14. That is, the final rule eliminates any need to respond to ad hoc requests by querying a loan file, retrieving the appraisal, and then going through the process of sending copies of the appraisal to the applicant.

Under the final rule, covered persons would incur the paperwork costs, for a set of applications and originations, of replicating and sending (either electronically or physically) copies of the appraisals and other written valuations.[108] A recent government study found that appraisals are performed in about 90 percent of first lien transactions, and that non-appraisal valuations are obtained in first lien transactions in which an appraisal is not performed.[109] The Bureau also believes that a second appraisal is conducted, and is sent, for any property with a loan size equal to or above $600,000. Further, appraisals are considered to be of inadequate quality 10 percent of the time, necessitating a second appraisal. Based on outreach to industry prior to the proposal, the Bureau assumes that creditors currently send to consumers copies of 100 percent of those written appraisals that are performed for an application for a transaction secured by

[103] *See, e.g.,* John Beshears et al., *The Importance of Default Options for Retirement Savings Outcomes: Evidence from the United States,* Social Security Policy in a Changing Environment 169 (Jeffrey Brown et al. eds., Univ. of Chi. Press); Eric Johnson & Daniel Goldstein. *Do Defaults Save Lives?,* 302 Science 1338 (2003).

[104] For example, in Quan and Quigley's theoretical model where buyers and seller have incomplete information, trades are decentralized, and prices are the result of pairwise bargaining, ''[t]he role of the appraiser is to provide information so that the variance of the price distribution is reduced.'' Daniel Quan & John Quigley, *Price Formation and the Appraisal Function in Real Estate Markets,* 4 J. Real Est. Fin. and Econ. (1991).

[105] Steven Levitt & Chad Syverson, *Market Distortions When Agents are Better Informed: The Value of Information In Real Estate Transactions,* 90 Rev. Econ. & Stat. 599 (2008).

[106] Peter Scott & Colin Lizieri, *Consumer House Price Judgments: New Evidence of Anchoring and Arbitrary Coherence,* 29 J. Prop. Rsch. 49 (2012).

[107] Respondents include a large bank, a trade group of smaller depository institutions, and an IMB.

[108] Based on its pre-proposal outreach and research, the Bureau assumes that the average appraisal is 20 pages long and that printing a copy of an appraisal costs $0.10 per page. In the proposal, the Bureau assumed that 84 percent of appraisals are sent via email and that these are already being sent in a manner that complies with the E-Sign Act, 15.75 percent of appraisals are sent via the United States Postal Service, and 0.25 percent of appraisals are sent via courier. The final rule adopts this assumption, recognizing that some creditors, as reflected in comments received on the proposal, may elect not to provide copies electronically in compliance with the E-Sign Act (and therefore these copies would be provided as part of the 16 percent of copies that are sent via the postal service or courier). Because the Bureau does not have data, for purposes of this analysis, the Bureau conservatively assumes that the average non-appraisal valuation is as long as an appraisal (20 pages), that printing costs for valuations other than appraisals are the same as for appraisals, that currently, no written valuations other than appraisals are sent to applicants, and that the cost of sending copies of these valuations would be the same as an appraisal. Mailing an appraisal is assumed to cost $2.12 based on the cost of first class mail for a 3.7oz letter (20 pages of 20 lb paper weighs 3.2oz with a 0.5oz allowance for an envelope) and requires 5 minutes of loan officer time (a conservative assumption, because it is based on loan officer time rather than the time of a loan processor); sending an appraisal via a courier is assumed to cost $17 ($15 for courier fees and $2 for replication costs) in material costs and 5 minutes of loan officer time; and, sending a copy via email is assumed to cost $0.05 of material cost and 1 minute of loan officer time.

[109] U.S. Gov't Accountability Office, GAO–12–840T, *Residential Appraisals,* at 6–7 (June 28, 2012).

a first-lien on a dwelling that results in an origination. Because available data and outreach did not indicate otherwise, the Bureau conservatively assumes that copies of appraisals and other written valuations developed for applications that do not result in a transaction currently are not sent to consumers. Similarly, the Bureau conservatively assumes that copies of non-appraisal valuations currently are not sent to consumers. The burden calculations that follow assume that a non-appraisal written valuation is conducted for every application, which likely overstates the costs associated with the rule.

As a result, the new paperwork costs under the final rule arise from providing copies of any written appraisals for the proportion of applications that do not result in originations (a proportion the Bureau estimates from HMDA data on applications and originations), and from providing copies of any non-appraisal valuations developed in connection with an application whether or not originated.

The additional cost of providing a copy of any non-appraisal valuation in most cases will be limited to the cost of generating a copy of the non-appraisal valuation to send to the applicant. When the copy is generated in paper form, the Bureau estimates the cost of generating the copy based upon an assumption that the non-appraisal valuation is at most as long as the written appraisal. With respect to transmission costs, in the 90 percent of first lien transactions where an appraisal is conducted and a copy already provided, the copy of the non-appraisal valuation often can be included with the appraisal already being sent, which would only increase transmission costs in the small minority of cases where the copy is not sent electronically (because of the postal delivery or courier having a marginally greater weight). If the copy of the non-appraisal valuation needs to be provided at a different time than the copy of a written appraisal, however, the creditor would need to make a second transmission to the applicant, which for a majority of transactions using electronic communications, would involve the cost of an additional electronic transmission. To be conservative, for first-lien, closed-end, forward mortgage loans the Bureau calculates the cost of sending the non-appraisal valuation assuming that it is sent separately from the appraisal. Finally, in the 10 percent of first lien closed-end, forward mortgage transactions where only a non-appraisal valuation is prepared, the cost of generating the copy and transmission will be new. For the HECMs (reverse mortgages) and first lien HELOCs the Bureau estimates will be covered by the rule,[110] the Bureau assumes that one appraisal or other written valuation beyond what is current standard practice will be provided.[111]

To measure these paperwork costs, counts of originations and applications for reporting depository institutions and credit unions are obtained from the HMDA data; for non-HMDA reporters, counts are imputed using accepted statistical techniques that allow estimates based on the data available in call reports.[112] Different techniques are used to extrapolate from the applications and originations data available in HMDA for reporting IMBs to the broader set of all IMBs.

Covered persons would also incur some costs in reviewing the final rule and in training the relevant employees.[113] To estimate these costs, the number of loan officers who may require training is estimated based on the application or origination estimates.

Finally, covered persons would incur some costs in updating Regulation B disclosures provided to applicants concerning appraisals. The cost of sending these disclosures would not change, however. In addition, some commenters suggested that non-appraisal valuations would be difficult for consumers to understand. While some creditors or valuation providers could choose to modify their reports to be more easily understood by the consumer audience, the rule does not require such modifications.

Based upon the foregoing assumptions and estimates, costs from the final rule—including one-time costs and one year of annualized costs—are estimated to be approximately $39 million, or approximately $5.05 for each loan originated.[114] This estimated cost is higher than the estimate in the proposal principally because, in the absence of information provided otherwise by commenters on the proposal, the Bureau is including the estimated cost of providing copies of written valuations other than appraisals, and is not assuming that creditors already are providing copies of most of these other written valuations to applicants.[115] The bulk of these costs arise from the paperwork requirements; roughly 1.8 percent results from the one-time review and training costs. This estimate is conservative because it does not take into account cost savings that will be achieved as a result of the final rule removing subordinate lien transactions from the scope of § 1002.14. These transactions currently are subject

[110] For reverse mortgage loan counts, since the HUD HECM Monthly Endorsement summary does not provide summary statistics of loans made by depository institutions of different asset sizes or non-depository institutions, when calculations are performed for separate classes of institutions, all HECMs are attributed to that class of institutions to create an upper bound of the cost of the regulation for that class. Similarly, for HELOC first lien loan counts, the Experian-Oliver Wyman data cannot be split by size of depository institution, so a parallel convention of attributing all depository institution costs to each class of depository institutions is followed. The number of first lien HELOCs is calculated by multiplying the number of HELOCs for depository institutions (242,710) and non-depository institutions (76,790) by the proportion of HELOCs that are first liens in the 2010 SCF (0.26).

[111] This is a conservative estimate, particularly in the case of reverse mortgages, as the Bureau understands that creditors in HECM transactions already provide borrowers with copies of appraisals, or a completed HUD–92800.5B (Conditional Commitment Direct Endorsement Statement of Appraised Value). *See* U.S. Dep't. of Hous. & Urban Dev., Asst. Sec'y for Hous., Mortgagee Letter 2005–ML–48 (Dec. 19, 2005).

[112] Specifically, Poisson regressions are run projecting loan volumes in these categories on the natural log of the following characteristics available in the Call reports: total one-to-four family residential loan volume outstanding, full-time equivalent employees, and assets. The regressions are run separately for each category of depository institution.

[113] The cost of reviewing the regulation at each institution is assumed to be the time cost of reading and reviewing the regulation, which is assumed to be 3 minutes per page for 9 pages. It is assumed that the regulation is reviewed by one lawyer and by one compliance officer at each institution, on average. Smaller institutions may not have a compliance officer, in which case additional implementation time would be assumed by the lawyer or other employee. Finally, the Bureau also believes that as part of routine software updates, creditors may make adjustments to software systems to ensure compliance with this rule (including updating the standard notice and incorporating additional valuation types into their copy distribution system); the Bureau does not believe these adjustments would impose significant additional costs beyond the existing routine upgrade processes.

[114] A few industry commenters argued that the analysis did not adequately consider the proposal's costs and benefits in the context of related rulemakings, including the aggregate effects of the new regulations on the U.S. economy. The Bureau, however, interprets the consideration required by section 1022(b)(2)(A) to be focused on the potential benefits, costs, and impacts of the particular rule at issue, and to not include those of other pending or potential rulemakings. Moreover, the commenters do not suggest a reliable method for assessing cumulative impacts of multiple rulemakings. The Bureau believes that there are multiple reasonable approaches for conducting the consideration called for by section 1022(b)(2)(A) and that the approach it has taken in this analysis is reasonable and that, particularly in light of the difficulties of reliably estimating certain benefits and costs, it has discretion to decline to undertake additional or different forms of analysis. The Bureau notes that it has coordinated the development of the final rule with its other rulemakings and has, as appropriate, discussed some of the significant interactions of the rulemakings.

[115] In addition, a significant part of the annualized costs is attributable to the minority of institutions that are assumed not to provide copies electronically. Over time, an increasing number of institutions may provide copies electronically. Therefore, this assumption is a conservative one.

to the appraisal copy-on-request regime of § 1002.14. Under the final rule, these transactions would not be subject to § 1002.14 and creditors in these transactions would not otherwise be required to provide copies of appraisals if the transaction is not a higher-priced-mortgage that is a closed-end transaction subject to the requirements of TILA section 129H and its implementing regulations in the 2013 Interagency Appraisals Final Rule.

B. Potential Reduction in Access by Consumers to Consumer Financial Products or Services

Because the final rule, which largely codifies existing practice relating to appraisals, is limited to relatively low-cost clerical tasks and does not require the creditor to obtain any additional goods or services, the final rule is not likely to have an appreciable impact on the cost of credit for consumers or on loan volumes.

C. Impact of the Final Rule on Depository Institutions and Credit Unions With $10 Billion or Less in Total Assets, as Described in Section 1026 of the Dodd-Frank Act, and the Impact of the Final Rule on Consumers in Rural Areas

For depository institutions with total assets of $10 billion or less, the Bureau estimates that the cost of compliance with the final rule would be $9.3 million. Because of their smaller size, fixed training and reviewing costs are spread over fewer applications and originations, and as a result the proportion of costs due to one-time burdens increases slightly to 3.0 percent of total cost. For each loan these institutions originate, the cost is estimated to be roughly $4.08.[116]

At least one commenter specifically questioned the estimated cost of $1.80 per loan originated in the proposed rule. Specifically, the commenter argued that the language in proposed comment 14(b)(3)–1, ''including written comments and other documents submitted to the creditor in support of the estimate of the property value,'' would require creditors to provide additional documentation that would exceed the estimate of $1.80 per loan originated. As previously discussed, the Bureau has made changes to the list of examples of valuations in the commentary to make clear that the rule does not require a creditor to provide written comments and other documents unless they are attachments or exhibits to an integrated valuation report. Accordingly, the Bureau has addressed the basis for the commenter's concern over a potential for a higher cost. Furthermore, the Bureau has provided updated estimates of the per-loan cost which, as discussed above, include an estimate of the cost of providing copies of non-appraisal valuations.

The Bureau does not expect that the final rule will have a unique impact on consumers in rural areas.

VIII. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct an initial regulatory flexibility analysis (IRFA) and a final regulatory flexibility analysis (FRFA) of any rule subject to notice-and-comment rulemaking requirements, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.[117] The Bureau also is subject to certain additional procedures under the RFA involving the convening of a panel to consult with small business representatives prior to proposing a rule for which an IRFA is required.[118] A FRFA is not required for this final regulation because the rule will not have a significant economic impact on a substantial number of small entities.

The final rule amends Regulation B, which implements ECOA, and the official interpretations to the regulation, which interpret and clarify the requirements of Regulation B. The revisions to Regulation B implement an ECOA amendment concerning appraisals and other valuations that was enacted as part of the Dodd-Frank Act. In general, the revisions to Regulation B require creditors to provide free copies of all appraisals and written valuations developed in connection with an application for a loan to be secured by a first lien on a dwelling. The final rule also requires creditors to notify applicants in writing of the right to receive a copy of each written appraisal at no additional cost.

The empirical approach to calculating the impact of the final regulation on small entities subject to its requirements utilizes the same data and methodology outlined in Part VII above. The analysis that follows focuses on the economic impact of the final rule, relative to a pre-statute baseline, for small depository institutions, credit unions and non-depository IMBs.

The Small Business Administration classifies commercial banks, savings institutions, credit unions, and other depository institutions as small if they have assets less than $175 million, and classifies other real estate credit firms as small if they have less than $7 million in annual revenues.[119] All creditors that extend real estate credit secured by a first lien on a dwelling are affected by the final rule. As shown below, the vast majority of small banks, thrifts, credit unions, and IMBs originate such loans.

The estimates provided here are based upon data and statistical analyses performed by the Bureau. To estimate counts and properties of mortgages for entities that do not report under HMDA, the Bureau has matched HMDA data to Call Report data and NMLS and has statistically projected estimated loan counts for those depository institutions that do not report these data either under HMDA or on the NCUA call report. These projections use Poisson regressions that estimate loan volumes as a function of an institution's total assets, employment, mortgage holdings and geographic presence.

Of the roughly 17,462 depository institutions, credit unions, and IMBs, 12,568 are below the relevant small entity thresholds. Of these, 9,373 are estimated to have originated mortgage loans in 2011. The Bureau has loan counts for credit unions and HMDA-reporting DIs and IMBs.

[116] Note that costs per-loan differ by institution class because the number of loans nd loan officers per-institution differ across institution classes.

[117] 5 U.S.C. 605(b). For purposes of assessing the impacts of the final rule on small entities, ''small entities'' is defined in the RFA to include small businesses, small not-for-profit organizations, and small government jurisdictions. 5 U.S.C. 601(6). A ''small business'' is determined by application of Small Business Administration regulations and reference to the North American Industry Classification System (NAICS) classifications and size standards. 5 U.S.C. 601(3). A ''small organization'' is any ''not-for-profit enterprise which is independently owned and operated and is not dominant in its field.'' 5 U.S.C. 601(4). A ''small governmental jurisdiction'' is the government of a city, county, town, township, village, school district, or special district with a population of less than 50,000. 5 U.S.C. 601(5).

[118] 5 U.S.C. 609.

[119] 13 CFR Ch. 1.

Table 1: Counts and Originations of Creditors by Type

Category	NAICS Code	Total Entities	Small Entities	Entities That Originate Any Mortgage Loans[b]	Small Entities that Originate Any Mortgage Loans
Commercial Banking	522110	6,505	3,601	6,307[a]	3,466[a]
Savings Institutions	522120	930	377	922[a]	373[a]
Credit Unions[c]	522130	7,240	6,296	4,178[a]	3,240[a]
Real Estate Credit[d e]	522292	2,787	2,294	2,787	2,294[a]
Total		17,462	12,568	14,194	9,373
Source: 2011 HMDA, Dec 31, 2011 Bank and Thrift Call Reports, Dec 31, 2011 NCUA Call Reports, Dec 31, 2011 NMLSR Mortgage Call Reports.					
[a] For HMDA reporters, loan counts from HMDA 2011. For institutions that are not HMDA reporters, loan counts projected based on Call Report data fields and counts for HMDA reporters. [b] Entities are characterized as originating loans if they make one or more loans.					
[c] Does not include cooperativas operating in Puerto Rico. The Bureau has limited data about these institutions or their mortgage activity.					
[d] NMLSR Mortgage Call Report (MCR) for 2011. All MCR reporters that originate at least one loan or that have positive loan amounts are considered to be engaged in real estate credit (instead of purely mortgage brokers). For institutions with missing revenue values, the probability that institution was a small entity is estimated based on the count and amount of originations and the count and amount of brokered loans.					
[e] Data do not distinguish nonprofit from for-profit organizations, but Real Estate Credit presumptively includes nonprofit organizations.					

Although most depository institutions, credit unions, and IMBs are affected by the final rule, the burden estimates below show that the rule does not have a significant impact on a substantial number of small entities. As discussed above, the economic impacts include preparing and sending copies of appraisals and other written valuations and the costs of reviewing the rule, training employees, and updating consumer disclosures concerning appraisals.

Consistent with the assumptions in the analysis of the previous section, the Bureau believes, based on its outreach prior to the proposal, that currently it is routine business practice for appraisals to be sent to consumers for all first-lien transactions that result in an origination and that copies of appraisals and other valuations conducted for applications that do not result in a loan are not sent to consumers. The Bureau also believes that a second appraisal is typically conducted, and is sent, for any property with a loan size equal to or above $600,000. Further, appraisals are considered to be of inadequate quality 10 percent of the time, necessitating a second appraisal.[120]

Under these assumptions, the total costs for small depository institutions, credit unions, and small IMBs of providing copies of the appraisals and other written valuations and any one-time costs for reviewing the regulation and training employees are estimated to be roughly $4.64 per-loan originated.[121] Across all small entities, the costs of the rule amount to a fraction of a percent of the revenue or profits from origination activity.[122]

Certification

Accordingly, the undersigned certifies that this final regulation will not have a significant economic impact on a substantial number of small entities.

IX. Paperwork Reduction Act

A. Overview

The Bureau's information collection requirements contained in this final rule, and identified as such, have been submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (Paperwork Reduction Act or PRA). Further, the PRA (44 U.S.C. 3507(a), (a)(2) and (a)(3)) requires that a Federal agency may not conduct or sponsor a collection of information unless OMB approved the collection under the PRA and the OMB control number obtained is displayed. Finally, notwithstanding any other provision of law, no person is required to comply with, or is subject to any penalty for failure to comply with, a collection of information does not display a currently valid OMB control number (44 U.S.C. 3512).

This final rule contains revised information collection requirements that have not been approved by the OMB and, therefore, are not effective until OMB approval is obtained. The unapproved information collection requirements contained in this rule are described below. The Bureau will publish a separate notice in the **Federal Register** announcing the submission of these information collection requirements to OMB as well as OMB's

[120] All other assumptions regarding costs are the same as those used in the analysis under Section 1022(b)(2). These include the following assumptions regarding wages based on the Bureau of Labor Statistics Occupation Employment Survey 2011: at depository institutions, loan officer wages are assumed to $31.69 per hour, lawyer wages are $77.31 per hour, and compliance officer wages are $30.41 per hour. At non-depository institutions, loan officer wages are assumed to be $32.16 per hour, lawyer wages are assumed to be $75.83 per hour, and compliance officer wages are $34.66 per hour. These rates are then increased to reflect that wages represent 66.6 percent of an employee's total compensation.

[121] As noted above, costs per-loan differ by institution class because the number of loans and loan officers per-institution differ across institution classes.

[122] Industry experts estimate that gross revenues per loan are approximately 3 percent of origination amount. The MBA's Mortgage Bankers Performance Report reports that in the 4th quarter of 2010 IMBs and subsidiaries reported that total production operating expenses were $4,930 per loan, average profits were $1,082 per loan, and average loan balance was $208,319.

action on these submissions; including, the OMB control number and expiration date.

The title of this information collection is ECOA Appraisal Final Rule. The frequency of response is on-occasion. The final rule amends 12 CFR part 1002, Equal Credit Opportunity (Regulation B). Regulation B currently contains collections of information approved by OMB. The Bureau's OMB control number for Regulation B is 3170–0013 (Equal Credit Opportunity Act (Regulation B) 12 CFR part 1002). As described below, the final rule would amend the collections of information currently in Regulation B.

The information collection in the final rule is required to provide benefits for consumers and is mandatory. Because the Bureau does not collect any information under the final rule, no issue of confidentiality arises. The likely respondents would be certain businesses, for-profit institutions, and nonprofit institutions that are creditors under Regulation B.

Under the final rule, the Bureau generally accounts for the paperwork burden for the following respondents pursuant to its enforcement/supervisory authority: insured depository institutions with more than $10 billion in total assets, their depository institution affiliates, and certain non-depository institutions. The Bureau and the FTC generally both have enforcement authority over non-depository institutions subject to Regulation B. Accordingly, the Bureau has allocated to itself half of the final rule's estimated burden to non-depository institutions. Other Federal agencies, including the FTC, are responsible for estimating and reporting to OMB the paperwork burden for the institutions for which they have enforcement/supervision authority. They may use the Bureau's burden estimation methodology, but need not do so.

Using the Bureau's burden estimation methodology, the total estimated burden for the roughly 14,200 creditors originate mortgages and therefore are subject to the final rule, including Bureau respondents, would be approximately 519,000 hours of ongoing burden annually and 14,500 hours in one-time burden. Because creditors generally already provide consumers copies of appraisals if a first lien transaction closes, the Bureau assumes that there are no required software or information technology upgrades associated with implementing the rule for providing copies of appraisals in transactions that are consummated or where the account is opened. The Bureau assumes that creditors would make a one-time technology upgrade to incorporate additional documents into this disclosure practice that may not be currently provided to applicants. This estimate also accounts for time to review the rule and for staff training. Under the final rule, creditors will be required to provide applicants with copies of these documents, such as appraisals developed in transactions that are not consummated or where the account is not opened, and non-appraisal valuations developed for first lien transactions (including both the estimated 10 percent of first lien transactions that involve a valuation other than an appraisal, as well as a portion of the other 90 percent of first lien transactions where a valuation is obtained in addition to an appraisal). The Bureau expects that the amount of time required to implement each of the required changes for a given institution may vary based on the size, complexity, and practices of the respondent.

B. Information Collection Requirements

The information collection requirements in the final rule consist of the provision of copies of appraisals and other written valuations to applicants. Under the final rule, copies of all appraisals and other written valuations developed in connection with a creditor's decision on an applicant for a loan to be secured by a first lien on a dwelling must be provided to the applicant free of charge promptly upon completion, or three business days before consummation or account opening, whichever is earlier, and these copies may be delivered physically or electronically. Currently, Regulation B requires that free copies of appraisals be provided upon request. From its outreach prior to the proposal, the Bureau learned that it is customary and in many cases already required by GSEs for creditors to send applicants a copy of all appraisals if the first lien loan closes, but firms differed in their practices of sending out copies of appraisals for such loans that did not close.[123] The outreach prior to the proposal stage also did not establish that creditors have a consistent practice of providing copies of valuations other than appraisals in first lien transactions. Therefore, the Bureau considers the incremental paperwork burden associated with the final rule's information collection requirements to be the cost of reviewing the rule, staff training, the one-time technology upgrade described above, sending out copies of non-appraisal valuations to applicants for first lien transactions, and sending out copies of appraisals and other written valuations to consumers who apply for loans that do not close but that reach the stage where an appraisal or other valuation is conducted. In some transactions in which more than one appraisal or other written valuation is conducted—a scenario that commenters did not state was frequent, but which nonetheless is assumed to be possible—separate transmissions to the applicant would be necessary, but only if they cannot both be provided promptly upon their respective completion in the same package.

While the final rule requires the creditor to provide a short written disclosure concerning the appraisal process within three business days of application, this disclosure may be classified as a warning label supplied by the Federal government. Accordingly, this requirement is not ''collection of information'' for purposes of the PRA. 5 CFR 1320.3(c)(2).

C. Summary of Estimated Burden for Bureau Respondents

The total annualized ongoing burden for the depository institutions and credit unions with more than $10 billion in assets (including their depository affiliates) that originate mortgage loans is estimated to be roughly 225,400 hours and the annualized ongoing burden for all non-depository institutions that originate mortgage loans is estimated to be approximately 171,300 hours. These respondents are estimated to incur an additional 5,200 hours and 4,000 hours in one-time burden, respectively. For purposes of the PRA analysis under this final rule, the Bureau would assume roughly 85,700 ongoing burden hours and 2,000 one-time hours for the non-depository institutions.[124]

The Bureau has a continuing interest in the public's opinions of our collections of information. At any time, comments regarding the burden estimate, or any other aspect of this collection of information, including suggestions for reducing the burden, may be sent to: The Consumer Financial Protection Bureau (Attention: PRA Office), 1700 G Street NW., Washington, DC, 20552, or by the internet to *CFPB_Public_PRA@cfpb.gov.*

[123] Outreach conversations prior to the proposal included a large bank, a trade group of smaller depository institutions, and an IMB.

[124] There may be a small additional burden for privately insured credit unions estimated to originate mortgages. The Bureau will assume half of the burden on these institutions.

List of Subjects in 12 CFR Part 1002

Aged, Banks, Banking, Civil rights, Consumer protection, Credit, Credit unions, Discrimination, Fair lending, Marital status discrimination, National banks, National origin discrimination, Penalties, Race discrimination, Religious discrimination, Reporting and recordkeeping requirements, Savings associations, Sex discrimination.

Authority and Issuance

For the reasons set forth in the preamble, the Bureau amends Regulation B, 12 CFR part 1002, as set forth below:

PART 1002—EQUAL CREDIT OPPORTUNITY ACT (REGULATION B)

■ 1. The authority citation for Part 1002 continues to read as follows:

Authority: 12 U.S.C. 5512, 5581; 15 U.S.C. 1691b.

■ 2. Section 1002.4 is amended by revising paragraph (d)(2) to read as follows:

§ 1002.4 General rules.

* * * * *

(d) * * *

(2) *Disclosures in electronic form.* The disclosures required by this part that are required to be given in writing may be provided to the applicant in electronic form, subject to compliance with the consumer consent and other applicable provisions of the Electronic Signatures in Global and National Commerce Act (E-Sign Act) (15 U.S.C. 7001 *et seq.*). Where the disclosures under §§ 1002.5(b)(1), 1002.5(b)(2), 1002.5(d)(1), 1002.5(d)(2), 1002.13, and 1002.14(a)(2) accompany an application accessed by the applicant in electronic form, these disclosures may be provided to the applicant in electronic form on or with the application form, without regard to the consumer consent or other provisions of the E-Sign Act.

■ 3. Section 1002.14 is revised to read as follows:

§ 1002.14 Rules on providing appraisals and other valuations.

(a) *Providing appraisals and other valuations.* (1) *In general.* A creditor shall provide an applicant a copy of all appraisals and other written valuations developed in connection with an application for credit that is to be secured by a first lien on a dwelling. A creditor shall provide a copy of each such appraisal or other written valuation promptly upon completion, or three business days prior to consummation of the transaction (for closed-end credit) or account opening (for open-end credit), whichever is earlier. An applicant may waive the timing requirement in this paragraph (a)(1) and agree to receive any copy at or before consummation or account opening, except where otherwise prohibited by law. Any such waiver must be obtained at least three business days prior to consummation or account opening, unless the waiver pertains solely to the applicant's receipt of a copy of an appraisal or other written valuation that contains only clerical changes from a previous version of the appraisal or other written valuation provided to the applicant three or more business days prior to consummation or account opening. If the applicant provides a waiver and the transaction is not consummated or the account is not opened, the creditor must provide these copies no later than 30 days after the creditor determines consummation will not occur or the account will not be opened.

(2) *Disclosure.* For applications subject to paragraph (a)(1) of this section, a creditor shall mail or deliver to an applicant, not later than the third business day after the creditor receives an application for credit that is to be secured by a first lien on a dwelling, a notice in writing of the applicant's right to receive a copy of all written appraisals developed in connection with the application. In the case of an application for credit that is not to be secured by a first lien on a dwelling at the time of application, if the creditor later determines the credit will be secured by a first lien on a dwelling, the creditor shall mail or deliver the same notice in writing not later than the third business day after the creditor determines that the loan is to be secured by a first lien on a dwelling.

(3) *Reimbursement.* A creditor shall not charge an applicant for providing a copy of appraisals and other written valuations as required under this section, but may require applicants to pay a reasonable fee to reimburse the creditor for the cost of the appraisal or other written valuation unless otherwise provided by law.

(4) *Withdrawn, denied, or incomplete applications.* The requirements set forth in paragraph (a)(1) of this section apply whether credit is extended or denied or if the application is incomplete or withdrawn.

(5) *Copies in electronic form.* The copies required by § 1002.14(a)(1) may be provided to the applicant in electronic form, subject to compliance with the consumer consent and other applicable provisions of the Electronic Signatures in Global and National Commerce Act (E-Sign Act) (15 U.S.C. 7001 *et seq.*).

(b) *Definitions.* For purposes of paragraph (a) of this section:

(1) *Consummation.* The term ''consummation'' means the time that a consumer becomes contractually obligated on a closed-end credit transaction.

(2) *Dwelling.* The term ''dwelling'' means a residential structure that contains one to four units whether or not that structure is attached to real property. The term includes, but is not limited to, an individual condominium or cooperative unit, and a mobile or other manufactured home.

(3) *Valuation.* The term ''valuation'' means any estimate of the value of a dwelling developed in connection with an application for credit.

■ 4. In Appendix C to Part 1002:

■ A. Paragraph 1 is revised.

■ B. Sample Form C–9 is revised.

The revisions read as follows:

Appendix C to Part 1002—Sample Notification Forms

1. This Appendix contains ten sample notification forms. Forms C–1 through C–4 are intended for use in notifying an applicant that adverse action has been taken on an application or account under §§ 1002.9(a)(1) and (2)(i) of this part. Form C–5 is a notice of disclosure of the right to request specific reasons for adverse action under §§ 1002.9(a)(1) and (2)(ii). Form C–6 is designed for use in notifying an applicant, under § 1002.9(c)(2), that an application is incomplete. Forms C–7 and C–8 are intended for use in connection with applications for business credit under § 1002.9(a)(3). Form C–9 is designed for use in notifying an applicant of the right to receive a copy of appraisals under § 1002.14. Form C–10 is designed for use in notifying an applicant for nonmortgage credit that the creditor is requesting applicant characteristic information.

* * * * *

Form C–9—Sample Disclosure of Right To Receive a Copy of Appraisals

We may order an appraisal to determine the property's value and charge you for this appraisal. We will promptly give you a copy of any appraisal, even if your loan does not close.

You can pay for an additional appraisal for your own use at your own cost.

* * * * *

■ 5. In Supplement I to Part 1002—Official Interpretations:

■ A. Under *Section 1002.14,* the heading is revised.

■ B. Newly designated *Section 1002.14* is revised.

■ C. Under *Appendix C—Sample Notification Forms,* paragraph 1 is revised.

The revisions read as follows:

Supplement I To Part 1002—Official Interpretations

* * * * *

Section 1002.14—Rules on Providing Appraisals and Valuations

14(a) Providing appraisals and other valuations.

1. *Multiple applicants.* If there is more than one applicant, the written disclosure about written appraisals, and the copies of appraisals and other written valuations, need only be given to one applicant. However, these materials must be given to the primary applicant where one is readily apparent. Similarly, if there is more than one applicant for credit in the transaction, one applicant may provide a waiver under § 1002.14(a)(1), but it must be the primary applicant where one is readily apparent.

14(a)(1) In general.

1. *Coverage.* Section 1002.14 covers applications for credit to be secured by a first lien on a dwelling, as that term is defined in § 1002.14(b)(2), whether the credit is for a business purpose (for example, a loan to start a business) or a consumer purpose (for example, a loan to purchase a home).

2. *Renewals.* Section 1002.14(a)(1) applies when an applicant requests the renewal of an existing extension of credit and the creditor develops a new appraisal or other written valuation. Section 1002.14(a)(1) does not apply to the extent a creditor uses the appraisals and other written valuations that were previously developed in connection with the prior extension of credit to evaluate the renewal request.

3. *Written.* For purposes of § 1002.14, an ''appraisal or other written valuation'' includes, without limitation, an appraisal or other valuation received or developed by the creditor in paper form (hard copy); electronically, such as CD or email; or by any other similar media. See § 1002.14(a)(5) regarding the provision of copies of appraisals and other written valuations to applicants via electronic means.

4. *Timing.* Section 1002.14(a)(1) requires that the creditor ''provide'' copies of appraisals and other written valuations to the applicant ''promptly upon completion,'' or no later than three business days before consummation (for closed-end credit) or account opening (for open-end credit), whichever is earlier.

i. For purposes of this timing requirement, ''provide'' means ''deliver.'' Delivery occurs three business days after mailing or delivering the copies to the last-known address of the applicant, or when evidence indicates actual receipt by the applicant, whichever is earlier. Delivery to or actual receipt by the applicant by electronic means must comply with the E-Sign Act, as provided for in § 1002.14(a)(5).

ii. The application and meaning of the ''promptly upon completion'' standard depends upon the facts and circumstances, including but not limited to when the creditor receives the appraisal or other written valuation, and the extent of any review or revision after the creditor receives it.

iii. ''Completion'' occurs when the last version is received by the creditor, or when the creditor has reviewed and accepted the appraisal or other written valuation to include any changes or corrections required, whichever is later. *See also* comment 14(a)(1)–7.

iv. In a transaction that is being consummated (for closed-end credit) or in which the account is being opened (for open-end credit), if an appraisal or other written valuation has been developed but is not yet complete, the deadline for providing a copy of three business days before consummation or account opening still applies, unless the applicant waived that deadline as provided under § 1002.14(a)(1), in which case the copy must be provided at or before consummation or account opening.

v. Even if the transaction will not be consummated (for closed-end credit) or the account will not be opened (for open-end credit), the copy must be provided ''promptly upon completion'' as provided for in § 1002.14(a)(1), unless the applicant has waived that deadline as provided under § 1002.14(a)(1), in which case as provided for in § 1002.14(a)(1) the copy must be provided to the applicant no later than 30 days after the creditor determines the transaction will not be consummated or the account will not be opened.

5. *Promptly upon completion–examples.* Examples in which the ''promptly upon completion'' standard would be satisfied include, but are not limited to, those in subparagraphs i, ii, and iii below. Examples in which the ''promptly upon completion'' standard would not be satisfied include, but are not limited to, those in subparagraphs iv and v below.

i. *Sending a copy of an appraisal within a week of completion with sufficient time before consummation (or account opening for open-end credit).* On day 15 after receipt of the application, the creditor's underwriting department reviews an appraisal and determines it is acceptable. One week later, the creditor sends a copy of the appraisal to the applicant. The applicant actually receives the copy more than three business days before the date of consummation (or account opening). The creditor has provided the copy of the appraisal promptly upon completion.

ii. *Sending a copy of a revised appraisal within a week after completion and with sufficient time before consummation (or account opening for open-end credit).* An appraisal is being revised, and the creditor does not receive the revised appraisal until day 45 after the application, when the creditor immediately determines the revised appraisal is acceptable. A week later, the creditor sends a copy of the revised appraisal to the applicant, and does not send a copy of the initial appraisal to the applicant. The applicant actually receives the copy of the revised appraisal three business days before the date of consummation (or account opening). The creditor has provided the appraisal copy promptly upon completion.

iii. *Sending a copy of an AVM report within a week after its receipt and with sufficient time before consummation (or account opening for open-end credit).* The creditor receives an automated valuation model (AVM) report on day 5 after receipt of the application and treats the AVM report as complete when it is received. On day 12 after receipt of the application, the creditor sends the applicant a copy of the valuation. The applicant actually receives the valuation more than three business days before the date of consummation (or account opening). The creditor has provided the copy of the AVM report promptly upon completion.

iv. *Delay in sending an appraisal.* On day 12 after receipt of the application, the creditor's underwriting department reviews an appraisal and determines it is acceptable. Although the creditor has determined the appraisal is complete, the creditor waits to provide a copy to the applicant until day 42, when the creditor schedules the consummation (or account opening) to occur on day 50. The creditor has not provided the copy of the appraisal promptly upon completion.

v. *Delay in sending an AVM report while waiting for completion of a second valuation.* The creditor receives an AVM report on day 5 after application and completes its review of the AVM report the day it is received. The creditor also has ordered an appraisal, but the initial version of the appraisal received by the creditor is found to be deficient and is sent for review. The creditor waits 30 days to provide a copy of the completed AVM report, until the appraisal is completed on day 35. The creditor then provides the applicant with copies of the AVM report and the revised appraisal. While the appraisal report was provided promptly upon completion, the AVM report was not.

6. *Waiver.* Section 1002.14(a)(1) permits the applicant to waive the timing requirement if the creditor provides the copies at or before consummation or account opening, except where otherwise prohibited by law. Except where otherwise prohibited by law, an applicant's waiver is effective under § 1002.14(a)(1) in either of the following two situations:

i. If, no later than three business days prior to consummation or account opening, the applicant provides the creditor an affirmative oral or written statement waiving the timing requirement under this rule; or

ii. If, within three business days of consummation or account opening, the applicant provides the creditor an affirmative oral or written statement waiving the timing requirement under this rule and the waiver pertains solely to the applicant's receipt of a copy of an appraisal or other written valuation that contains only clerical changes from a previous version of the appraisal or other written valuation provided to the applicant three or more business days prior to consummation or account opening. For purpose of this second type of waiver, revisions will only be considered to be clerical in nature if they have no impact on the estimated value, and have no impact on the calculation or methodology used to derive the estimate. In addition, under § 1002.14(a)(1) the applicant still must receive the copy of the revision at or prior to consummation or account opening.

7. *Multiple versions of appraisals or valuations.* For purposes of § 1002.14(a)(1), the reference to ''all'' appraisals and other written valuations does not refer to all versions of the same appraisal or other

valuation. If a creditor has received multiple versions of an appraisal or other written valuation, the creditor is required to provide only a copy of the latest version received. If, however, a creditor already has provided a copy of one version of an appraisal or other written valuation to an applicant, and the creditor later receives a revision of that appraisal or other written valuation, then the creditor also must provide the applicant with a copy of the revision to comply with § 1002.14(a)(1). If a creditor receives only one version of an appraisal or other valuation that is developed in connection with the applicant's application, then that version must be provided to the applicant to comply with § 1002.14(a)(1). *See also* comment 14(a)(1)–4 above.

14(a)(2) Disclosure.

1. *Appraisal independence requirements not affected.* Nothing in the text of the disclosure required by § 1002.14(a)(2) should be construed to affect, modify, limit, or supersede the operation of any legal, regulatory, or other requirements or standards relating to independence in the conduct of appraisers or the use of applicant-ordered appraisals by creditors.

14(a)(3) Reimbursement.

1. *Photocopy, postage, or other costs.* Creditors may not charge for photocopy, postage, or other costs incurred in providing a copy of an appraisal or other written valuation in accordance with section 14(a)(1).

2. *Reasonable fee for reimbursement.* Section 1002.14(a)(3) does not prohibit a creditor from imposing a reasonable fee to reimburse the creditor's costs of the appraisal or other written valuation, so long as the fee is not increased to cover the costs of providing copies of such appraisals or other written valuations under § 1002.14(a)(1). A creditor's cost may include an administration fee charged to the creditor by an appraisal management company as defined in 12 U.S.C. 3350(11). Section 1002.14(a)(3) does not, however, legally obligate the applicant to pay such fees. Further, creditors may not impose fees for reimbursement of the costs of an appraisal or other valuation where otherwise prohibited by law. For instance, a creditor may not charge a consumer a fee for the performance of a second appraisal if the second appraisal is required under 15 U.S.C. 1639h(b)(2) and 12 CFR 1026.35(c).

14(b) Definitions.

14(b)(1) Consummation.

1. *State law governs.* When a contractual obligation on the consumer's part is created is a matter to be determined under applicable law; § 1002.14 does not make this determination. A contractual commitment agreement, for example, that under applicable law binds the consumer to the credit terms would be consummation. Consummation, however, does not occur merely because the consumer has made some financial investment in the transaction (for example, by paying a nonrefundable fee) unless, of course, applicable law holds otherwise.

2. *Credit vs. sale.* Consummation does not occur when the consumer becomes contractually committed to a sale transaction, unless the consumer also becomes legally obligated to accept a particular credit arrangement.

14(b)(2) Dwelling.

1. *''Motor vehicles'' not covered.* The requirements of § 1002.14 do not apply to ''motor vehicles'' as defined by 12 U.S.C. 5519(f)(1).

14(b)(3) Valuation.

1. *Valuations—examples.* Examples of valuations include but are not limited to:

i. A report prepared by an appraiser (whether or not licensed or certified) including the appraiser's estimate or opinion of the property's value.

ii. A document prepared by the creditor's staff that assigns value to the property.

iii. A report approved by a government-sponsored enterprise for describing to the applicant the estimate of the property's value developed pursuant to the proprietary methodology or mechanism of the government-sponsored enterprise.

iv. A report generated by use of an automated valuation model to estimate the property's value.

v. A broker price opinion prepared by a real estate broker, agent, or sales person to estimate the property's value.

2. *Attachments and exhibits.* The term ''valuation'' includes any attachments and exhibits that are an integrated part of the valuation.

3. *Other documentation.* Not all documents that discuss or restate a valuation of an applicant's property constitute a ''valuation'' for purposes of § 1002.14(b)(3). Examples of documents that discuss the valuation of the applicant's property or may reflect its value but nonetheless are not ''valuations'' include but are not limited to:

i. Internal documents that merely restate the estimated value of the dwelling contained in an appraisal or written valuation being provided to the applicant.

ii. Governmental agency statements of appraised value that are publically available.

iii. Publicly-available lists of valuations (such as published sales prices or mortgage amounts, tax assessments, and retail price ranges).

iv. Manufacturers' invoices for manufactured homes.

v. Reports reflecting property inspections that do not provide an estimate or opinion of the value of the property and are not used to develop an estimate or opinion of the value of the property.

* * * * *

Appendix C—Sample Notification Forms

1. *Form C–9.* If not otherwise provided under other applicable disclosure requirements, creditors may design their own form, add to, or modify the model form to reflect their individual policies and procedures. For example, a creditor may want to add:

i. A telephone number that applicants may call to leave their name and the address to which a copy of the appraisal or other written valuation should be sent.

ii. A notice of the cost the applicant will be required to pay the creditor for the appraisal or other valuation.

Dated: January 18, 2013.

Richard Cordray,

Director, Bureau of Consumer Financial Protection.

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FEDERAL REGISTER

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Part VII

The President

Memorandum of January 25, 2013—Rulemaking Concerning the Standards for Designating Positions in the Competitive Service as National Security Sensitive and Related Matters

Federal Register
Vol. 78, No. 21
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Presidential Documents

Title 3—

The President

Memorandum of January 25, 2013

Rulemaking Concerning the Standards for Designating Positions in the Competitive Service as National Security Sensitive and Related Matters

Memorandum for the Director of National Intelligence [and] the Director of the Office of Personnel Management

The Director of National Intelligence and the Director of the Office of Personnel Management shall jointly propose the amended regulations contained in the Office of Personnel Management's notice of proposed rulemaking in 75 *Fed. Reg.* 77783 (December 14, 2010), with such modifications as are necessary to permit their joint publication, without prejudice to the authorities of the Director of National Intelligence and the Director of the Office of Personnel Management under any Executive Order, and to the extent permitted by law.

This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

The Director of the Office of Personnel Management is hereby authorized and directed to publish this memorandum in the *Federal Register*.

THE WHITE HOUSE,
Washington, January 25, 2013.

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H.R. 152/P.L. 113–2
Making supplemental appropriations for the fiscal year ending September 30, 2013, to improve and streamline disaster assistance for Hurricane Sandy, and for other purposes. (Jan. 29, 2013; 127 Stat. 4)
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