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Contents

Federal Register

Vol. 87, No. 154

Thursday, August 11, 2022

Agriculture Department
See Forest Service

Bureau of Consumer Financial Protection
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals, 49583–49584

Coast Guard
RULES
Safety Zones:
Grosse Pointe Farms Fireworks, Lake St. Clair, Grosse Pointe Farms, MI, 49523–49524
Special Local Regulations:
Olympia Harbor Days Tug Boat Races, Budd Inlet, WA, 49522–49523
PROPOSED RULES
Safety Zones:
Firework Event, Willamette River, Portland, OR, 49568–49570
NOTICES
Safe Loading, Safe Powering and Flotation Compliance Guidance for Electrically Powered Recreational Vessels Policy Letter, 49599–49600

Commerce Department
See Economic Development Administration
See Foreign-Trade Zones Board
See International Trade Administration
See National Oceanic and Atmospheric Administration

Commodity Futures Trading Commission
PROPOSED RULES
Governance Requirements for Derivatives Clearing Organizations, 49559–49568
NOTICES
Charter Amendments, Establishments, Renewals and Terminations:
Agricultural Advisory Committee, 49582–49583

Comptroller of the Currency
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals, 49647–49651
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Assessment of Fees, 49651–49652

Economic Development Administration
NOTICES
Trade or Worker Adjustment Assistance Eligibility; Petitions, Determinations, etc., 49579

Election Assistance Commission
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Testing and Certification Forms, 49584–49585

Energy Department
See Federal Energy Regulatory Commission
PROPOSED RULES
Energy Conservation Program:
Energy Conservation Standards for Commercial and Industrial Pumps, 49537–49554
NOTICES
Request for Information:
Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization, 49585

Environmental Protection Agency
RULES
Air Quality State Implementation Plans; Approvals and Promulgations:
Kentucky; Removal of Excess Emissions Provisions, 49528–49530
Missouri; Construction Permits Required, 49530–49532
New Hampshire; Particulate Emissions from Open Sources, 49526–49528
North Carolina; Inspection and Maintenance Program, 49524–49526
PROPOSED RULES
Air Quality State Implementation Plans; Approvals and Promulgations:
New York; Revision to New York Codes, Rules, and Regulations, Architectural and Industrial Maintenance Coatings, 49570–49573
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Data Requirements Rule for the 1-Hour Sulfur Dioxide Primary National Ambient Air Quality Standard Information Request, 49590–49592

Federal Aviation Administration
RULES
Accepted Means of Compliance; Remote Identification of Unmanned Aircraft, 49520
Airspace Designations and Reporting Points:
Liberal, KS, 49519–49520
Airworthiness Directives:
The Boeing Company Airplanes, 49509–49519
PROPOSED RULES
Airworthiness Directives:
Airbus Helicopters, 49554–49556
Learjet, Inc., Airplanes, 49556–49559
NOTICES
Charter Amendments, Establishments, Renewals and Terminations:
NextGen Advisory Committee, 49646
Meetings:
NextGen Advisory Committee, 49645–49646

Federal Deposit Insurance Corporation
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals, 49647–49651
Termination of Receivership, 49592–49593

Federal Energy Regulatory Commission
NOTICES
Application:
Beaver Falls Municipal Authority, 49588

Solia 1 Hydroelectric, LLC, 49587–49588
Combined Filings, 49586–49587
Environmental Assessments; Availability, etc.:
Venture Global Calcasieu Pass, LLC, Calcasieu Pass Uprate Amendment Project, 49589–49590
Institution of Section 206 Proceeding:
KMC Thermo, LLC, 49590

Federal Motor Carrier Safety Administration
NOTICES
Commercial Driver's Licenses:
National School Transportation Association; Exemption Application, 49646–49647

Federal Reserve System
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals, 49647–49651
Change in Bank Control:
Acquisitions of Shares of a Bank or Bank Holding Company, 49593

Fish and Wildlife Service
NOTICES
Endangered and Threatened Species:
Recovery Permit Applications, 49603–49605

Food and Drug Administration
RULES
Guidance:
Prevention of Salmonella Enteritidis in Shell Eggs During Production, Storage, and Transportation (Layers with Access to Areas Outside the Poultry House): Questions and Answers Regarding the Final Rule, 49521–49522
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Registration and Product Listing for Owners and Operators of Domestic Tobacco Product Establishments and Listing of Ingredients in Tobacco Products, 49593–49596
Substances Prohibited from Use in Animal Food or Feed; Animal Proteins Prohibited in Ruminant Feed, 49596

Foreign Assets Control Office
NOTICES
Sanctions Action, 49652–49653

Foreign-Trade Zones Board
NOTICES
Application for Expansion:
Oldach Associates, LLC, Foreign-Trade Zone 61, San Juan, PR, 49580
Application for Subzone:
Burger Boat Co., Foreign-Trade Zone 167, Brown County, WI, 49579
Authorization of Production Activity:
M.M.O. Companies, Inc., Foreign-Trade Zone 31, Granite City, IL, 49580

Forest Service
NOTICES
Proposed Permanent Seasonal Order:
Closing Management Area 3.67 of the Thunder Basin National Grassland to Prairie Dog Hunting, 49578–49579

Health and Human Services Department
See Food and Drug Administration
See National Institutes of Health
NOTICES
Findings of Research Misconduct, 49597–49598

Homeland Security Department
See Coast Guard
See U.S. Customs and Border Protection
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Immigrant Military Members and Veterans Initiative Portal, 49602–49603

Indian Affairs Bureau
NOTICES
Meetings:
Self-Governance PROGRESS Act Negotiated Rulemaking Committee, 49605

Interior Department
See Fish and Wildlife Service
See Indian Affairs Bureau
See National Park Service
See Ocean Energy Management Bureau
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Private Rental Survey, 49606–49607

International Trade Administration
NOTICES
Binational Panel Review:
United States Mexico Canada Agreement; Completion, 49580

International Trade Commission
NOTICES
Investigations; Determinations, Modifications, and Rulings, etc.:
Certain Barcode Scanners, Mobile Computers with Barcode Scanning Capabilities, Scan Engines, Components Thereof, and Products Containing the Same, 49614
Certain Barcode Scanners, Mobile Computers with Barcode Scanning Capabilities, Scan Engines, RFID Printers, Components Thereof, and Products Containing Same, 49613
Certain Centrifuge Utility Platform and Falling Film Evaporator Systems and Components Thereof, 49613–49614

Justice Department
NOTICES
Proposed Consent Decree under the Clean Air Act, 49614–49615

National Institutes of Health
NOTICES
Licenses; Exemptions, Applications, Amendments etc.:
Inter-Institutional Agreement-Institution Lead: Multivalent Vaccines for Rabies Virus and Coronaviruses, 49599
Meetings:
Center for Scientific Review, 49598

National Oceanic and Atmospheric Administration
RULES
Atlantic Highly Migratory Species:
Atlantic Bluefin Tuna Fisheries; Closure of the General Category Fishery June through August 2022 Subquota Time Period, 49532–49534
Fisheries off West Coast States:
Modification of the West Coast Salmon Fisheries; Inseason Actions No. 16 through No. 25, 49534–49536
PROPOSED RULES
Magnuson-Stevens Fishery Conservation and Management Act Provisions:
Fisheries of the Northeastern United States; Amendment 22 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan, 49573–49577
Taking and Importing Marine Mammals:
U.S. Navy Training Activities in the Gulf of Alaska Study Area, 49656–49765
NOTICES
Issuance of Permits, Permit Amendments, and Permit Modifications:
Marine Mammals and Endangered Species, 49581–49582
Meetings:
Advisory Committee on Commercial Remote Sensing, 49582
New England Fishery Management Council, 49580–49581

National Park Service
NOTICES
Inventory Completion:
Alabama Department of Transportation, Montgomery, AL, 49609–49610
Federal Bureau of Investigation, Art Theft Program, Washington, DC, 49607–49609
Library Co. of Philadelphia, Philadelphia, PA, 49611–49612
Minnesota Indian Affairs Council, Bemidji, MN; Rescindment, 49610–49611
Repatriation of Cultural Items:
Federal Bureau of Investigation, Art Theft Program, Washington, DC, 49608, 49611

National Science Foundation
NOTICES
Meetings:
National Artificial Intelligence Research Resource Task Force, 49615

Nuclear Regulatory Commission
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Cooperation with States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities, 49615–49616
National Source Tracking Transaction Report, 49616–49617

Ocean Energy Management Bureau
NOTICES
Environmental Impact Statements; Availability, etc.:
Future Wind Energy Development in the New York Bight, 49612–49613

Pension Benefit Guaranty Corporation
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Special Financial Assistance Information, 49617–49619

Personnel Management Office
NOTICES
Agency Information Collection Activities; Proposals, Submissions, and Approvals:
Combined Federal Campaign Charity Applications, 49619

Postal Regulatory Commission
NOTICES
New Postal Products, 49619–49620

Presidential Documents
EXECUTIVE ORDERS
Reproductive and Other Health Care Services; Efforts To Secure Access (EO 14079), 49505–49507

Securities and Exchange Commission
NOTICES
Application:
MSD Investment Corp., et al., 49631
Self-Regulatory Organizations; Proposed Rule Changes:
Financial Industry Regulatory Authority, Inc., 49626–49628
MEMX, LLC, 49620–49624
Nasdaq PHLX, LLC, 49635–49637
National Securities Clearing Corp., 49628–49631
New York Stock Exchange, LLC, 49632–49635
The Nasdaq Stock Market, LLC, 49624–49626, 49631–49632

Small Business Administration
NOTICES
Disaster Declaration:
Kentucky, 49638–49639
Meetings:
Advisory Committee on Veterans Business Affairs, 49639
Interagency Task Force on Veterans Small Business Development, 49637–49638
National Small Business Development Center Advisory Board, 49638

State Department
NOTICES
Bureau of Political-Military Affairs, Directorate of Defense Trade Controls:
Notifications to the Congress of Proposed Commercial Export Licenses, 49642–49644
Meetings:
Preparation for the International Maritime Organization TC 72 Meeting, 49644–49645
Report to Congress Pursuant to the United States—Northern Triangle Enhanced Engagement Act, 49639–49642

Trade Representative, Office of United States
NOTICES
List of Countries Denying Fair Market Opportunities for Government-Funded Airport Construction Projects, 49645

Transportation Department
See Federal Aviation Administration
See Federal Motor Carrier Safety Administration

Treasury Department
See Comptroller of the Currency
See Foreign Assets Control Office

U.S. Customs and Border Protection
NOTICES
Enhanced Transparency and Access to Information for Refund Requesters in the Automated Commercial Environment, 49600–49602

Veterans Affairs Department
NOTICES
Meetings:
Advisory Committee on Women Veterans, 49653

Separate Parts In This Issue

Part II
Commerce Department, National Oceanic and Atmospheric Administration, 49656–49765

Reader Aids

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

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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.

3 CFR

Executive Orders:

14079 49505

10 CFR

Proposed Rules:

431 49537

14 CFR

39 (2 documents) 49509, 49515

71 49519

89 49520

Proposed Rules:

39 (2 documents) 49554, 49556

17 CFR

Proposed Rules:

39 49559

21 CFR

118 49521

33 CFR

100 49522

165 49523

Proposed Rules:

165 49568

40 CFR

52 (4 documents) 49524, 49526, 49528, 49530

Proposed Rules:

52 49570

50 CFR

635 49532

660 49534

Proposed Rules:

218 49656

648 49573

Federal Register
Vol. 87, No. 154
Thursday, August 11, 2022

Presidential Documents

Title 3—

The President

Executive Order 14079 of August 3, 2022

Securing Access to Reproductive and Other Healthcare Services

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. *Policy*. On July 8, 2022, following a decision by the Supreme Court to overrule *Roe* v. *Wade*, 410 U.S. 113 (1973), I signed Executive Order 14076 (Protecting Access to Reproductive Healthcare Services). As that order recognized, eliminating the right recognized in Roe has had and will continue to have devastating implications for women's health and public health more broadly.

Following that order, the Department of Health and Human Services (HHS) has taken critical steps to address those effects. These steps include clarifying the obligation of hospitals and providers under the Emergency Medical Treatment and Labor Act, 42 U.S.C. 1395dd, to provide to patients presenting at an emergency department with an emergency medical condition stabilizing care, including an abortion, if that care is necessary to stabilize their emergency medical condition, and issuing guidance to the Nation's retail pharmacies on their obligations under Federal civil rights laws—including section 504 of the Rehabilitation Act, 29 U.S.C. 794, and section 1557 of the Affordable Care Act, 42 U.S.C. 18116—to ensure equal access to comprehensive reproductive and other healthcare services, including for women who are experiencing miscarriages.

However, the continued advancement of restrictive abortion laws in States across the country has created legal uncertainty and disparate access to reproductive healthcare services depending on where a person lives, putting patients, providers, and third parties at risk and fueling confusion for hospitals and healthcare providers, including pharmacies. There have been numerous reports of women denied health- and life-saving emergency care, as providers fearful of legal reprisal delay necessary treatment for patients until their conditions worsen to dangerous levels. There are also reports of women of reproductive age being denied prescription medication at pharmacies—including medication that is used to treat stomach ulcers, lupus, arthritis, and cancer—due to concerns that these medications, some of which can be used in medication abortions, could be used to terminate a pregnancy. Reportedly, a healthcare provider, citing a State law restricting abortion, even temporarily stopped providing emergency contraception.

As it remains the policy of my Administration to support women's access to reproductive healthcare services, including their ability to travel to seek abortion care in States where it is legal, I am directing my Administration to take further action to protect access to reproductive healthcare services and to address the crisis facing women's health and public health more broadly.

Sec. 2. *Definition*. The term ''reproductive healthcare services'' means medical, surgical, counseling, or referral services relating to the human reproductive system, including services relating to pregnancy or the termination of a pregnancy.

Sec. 3. *Advancing the Ability to Obtain Reproductive Healthcare Services*. In furtherance of the policy set forth in section 1 of this order, the Secretary of HHS shall consider actions to advance access to reproductive healthcare

services, including, to the extent permitted by Federal law, through Medicaid for patients traveling across State lines for medical care.

Sec. 4. *Promoting Compliance with Non-Discrimination Law in Obtaining Medical Care*. In furtherance of the policy set forth in section 1 of this order, and to ensure that individuals are not denied necessary healthcare on the basis of any ground protected by Federal law, including current pregnancy, past pregnancy, potential or intended pregnancy, or other medical conditions, the Secretary of HHS shall consider all appropriate actions to advance the prompt understanding of and compliance with Federal non-discrimination laws by healthcare providers that receive Federal financial assistance. Such actions may include:

(a) providing technical assistance for healthcare providers that have questions concerning their obligations under Federal non-discrimination laws;

(b) convening healthcare providers to provide information on their obligations under Federal non-discrimination laws and the potential consequences of non-compliance; and

(c) issuing additional guidance, or taking other action as appropriate, in response to any complaints or other reports of non-compliance with Federal non-discrimination laws.

Sec. 5. *Data Collection*. The Secretary of HHS shall evaluate the adequacy of research, data collection, and data analysis and interpretation efforts at the National Institutes of Health, the Centers for Disease Control and Prevention, and other relevant HHS components in accurately measuring the effect of access to reproductive healthcare on maternal health outcomes and other health outcomes. Following that evaluation, the Secretary shall take appropriate actions to improve those efforts.

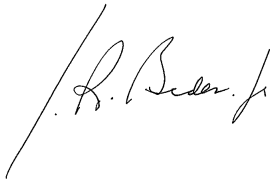
Sec. 6. *General Provisions*. (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order 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 WHITE HOUSE,
August 3, 2022.

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Rules and Regulations

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Vol. 87, No. 154

Thursday, August 11, 2022

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–1005; Project Identifier AD–2021–00842–T; Amendment 39–22127; AD 2022–15–07]

RIN 2120–AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 747–400 series airplanes. This AD was prompted by a report that after a certain circuit breaker tripped, power to the two pitot-static (P/S) probe heaters on the right-hand side was lost, and the flightcrew discovered conflicting procedures in the flightcrew operations manual/quick reference handbook (FCOM/QRH). This AD requires revising the existing airplane flight manual (AFM) to incorporate procedures to be applied during P/S probe heater failure conditions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective September 15, 2022.

ADDRESSES:

Examining the AD Docket

You may examine the AD docket at *www.regulations.gov* by searching for and locating Docket No. FAA–2021–1005; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Huey Ton, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712–4137; phone: 562–627–5320; email: *huey.ton@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 747–400 series airplanes. The NPRM published in the **Federal Register** on December 28, 2021 (86 FR 73694). The NPRM was prompted by a report that after a certain circuit breaker tripped, power to the two P/S probe heaters on the right-hand side was lost, and the flightcrew discovered conflicting procedures in the FCOM/QRH. In the NPRM, the FAA proposed to require revising the existing AFM to incorporate procedures to be applied during P/S probe heater failure conditions. The FAA is issuing this AD to address the conflicting procedures, which could result in the transmission of potentially inaccurate pitot static pressure data to the air data computer (ADC), resulting in erroneous or misleading air data being displayed, which, in combination with a stall, overspeed, overrun, or short/hard landing condition, could result in reduced ability of the flightcrew to maintain continued safe flight and landing of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from the Air Line Pilots Association, International (ALPA) who supported the NPRM without change.

The FAA received additional comments from a commenter, Cathay Pacific Airways Ltd. (Cathay Pacific). The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Clarify Requirements of Paragraph (g) of the Proposed AD

Cathay Pacific requested that the FAA clarify the requirements of paragraph (g) of the proposed AD to allow removing a copy of the AD from the AFM. Cathay Pacific commented that inserting a copy of the AD into the AFM is not a routine procedure, and that it also appears that once the AFM is revised to include the information provided in the AD, there is no provision within paragraph (g) of the proposed AD to remove the copy of the AD from the AFM. Cathay Pacific suggested revising the proposed AD to add a provision to permit the AD copy to be removed from the AFM.

The FAA agrees to clarify the requirements but disagrees with the suggestion to revise this AD. Paragraph (g) of this AD requires revising the AFM to include the changes specified in paragraphs (g)(1) through (4) of this AD, and allows for inserting a copy of the AD as one means of complying with the requirement to revise the AFM. Inserting a copy of the AD is an option that has been allowed in other ADs. There is no need to specify removing the copy of the AD when an operator subsequently uses another method to comply with the AD. After an operator uses another method to revise the AFM to include the changes to the AFM text specified in paragraphs (g)(1) through (4) of this AD, an operator may remove the copy of the AD. The FAA has not changed the AD in this regard.

Request To Clarify Method for Complying With Requirements of Paragraph (g) of the Proposed AD

Cathay Pacific requested that the FAA clarify if a temporary revision to the AFM is acceptable to comply with paragraph (g) of the proposed AD. Cathay Pacific remarked that the manufacturer might issue a temporary revision to the AFM which includes the information and asked if using a temporary revision would be considered a means of compliance with paragraph (g) of the proposed AD. Cathay Pacific further asked that if a temporary revision is an acceptable means of compliance, could the FAA revise paragraph (g) of the proposed AD to also specify temporary revisions as a means of compliance.

The FAA agrees to clarify but does not agree to revise the AD. A temporary revision to the AFM, provided it has the specified changes required by paragraph (g) of this AD, is a means of revising the AFM. The language in paragraph (g) of this AD is designed to allow revising the AFM to incorporate the required

changes through various methods, so long as the language in the revised AFM is identical to the changes specified in paragraphs (g)(1) through (4) of this AD. The FAA has not changed the AD in this regard.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Costs of Compliance

The FAA estimates that this AD affects 114 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM Revision	1 work-hour × $85 per hour = $85	None	$85	$9,690

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.

The FAA is 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

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 that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

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 airworthiness directive:

2022–15–07 The Boeing Company: Amendment 39–22127; Docket No. FAA–2021–1005; Project Identifier AD–2021–00842–T.

(a) Effective Date

This airworthiness directive (AD) is effective September 15, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747–400 series airplanes, certificated in any category, having a three air data computer (ADC) configuration, except for airplanes on which the Production Revision Record (PRR) 85655 has been incorporated.

(d) Subject

Air Transport Association (ATA) of America Code 34, Navigation.

(e) Unsafe Condition

This AD was prompted by a report that after a certain circuit breaker tripped, power to the two pitot-static (P/S) probe heaters on the right-hand side was lost, and the flightcrew discovered conflicting procedures in the flightcrew operations manual/quick reference handbook (FCOM/QRH). The FAA is issuing this AD to address the conflicting procedures, which could result in the transmission of potentially inaccurate pitot static pressure data to the ADC, resulting in erroneous or misleading air data being displayed, which, in combination with a stall, overspeed, overrun, or short/hard landing condition, could result in reduced ability of the flightcrew to maintain continued safe flight and landing of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Airplane Flight Manual (AFM) Revisions

Within 90 days after the effective date of this AD, revise the Non-Normal Procedures Section of the existing AFM to include the changes specified in paragraphs (g)(1) through (4) of this AD. Revising the existing AFM to include the changes specified in paragraphs (g)(1) through (4) of this AD, may be done by inserting a copy of figure 1 to paragraph (g)(1) through figure 4 to paragraph (g)(4) of this AD into the existing AFM.

(1) In Section 2, Non-Normal Procedures, add the ''HEAT P/S CAPT'' paragraph to include the information in figure 1 to paragraph (g)(1) of this AD.

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Figure 1 to paragraph (g)(1) – *AFM Revision: Heat P/S Captain*

PITOT-STATIC PROBE HEAT **(Required by AD 2022-15-07)**

HEAT P/S CAPT

The HEAT P/S CAPT message indicates that captain's pitot static probe heat is failed. This procedure objective is to determine whether more than one probe heat is failed, and to select air data sources to minimize or to prevent erroneous flight instrument indications.

Disengage the autopilot.

If EICAS message HEAT P/S CAPT is displayed and HEAT P/S L AUX is blank, place the captain's air data source selector to R and the first officer's air data source selector to C. Engage the R autopilot, if needed. L and C autopilots are unreliable in icing conditions, end of procedure.

[Disengage the autopilot.]

If EICAS messages HEAT P/S CAPT and HEAT P/S L AUX are both displayed, place the captain's air data source selector to C. Engage any autopilot, if needed. Avoid icing conditions. Flight in icing conditions can result in unreliable standby flight instrument indications.

Note Inoperative Items:

- Both pitot probe heaters on the left side of the airplane inoperative – Avoid Icing Conditions.
- Autothrottle inoperative, Reference EPR is blank - Use manual throttle.
- LNAV and VNAV inoperative – Use HDG SEL or HDG HOLD and FLCH, V/S or ALT HOLD.

Do not accomplish the HEAT P/S L AUX non-normal procedure, end of procedure.

(2) In Section 2, Non-Normal Procedures, add the ''HEAT P/S F/O'' paragraph to include the information in figure 2 to paragraph (g)(2) of this AD.

Figure 2 to paragraph (g)(2) – *AFM Revision: Heat P/S First Officer*

PITOT-STATIC PROBE HEAT (CONTINUED) (Required by AD 2022-15-07)

HEAT P/S F/O

The HEAT P/S F/O message indicates that First Officer's pitot static probe heat is failed. This procedure objective is to determine whether more than one probe heat is failed, and to select air data sources to minimize or to prevent erroneous flight instrument indications.

Disengage the autopilot.

If EICAS message HEAT P/S F/O is displayed and HEAT P/S R AUX is blank, place the captain's air data source selector to C and the first officer's air data source selector to L. Engage the L or C autopilot, if needed. R autopilot is unreliable in icing conditions, end of procedure.

[Disengage the autopilot.]

If EICAS messages HEAT P/S F/O and HEAT P/S R AUX are both displayed, engage the L or C autopilot, if needed. R autopilot is unreliable in icing conditions. Avoid icing conditions. Flight in icing conditions can result in unreliable first officer's flight instrument indications.

Note Inoperative Items:

- Both pitot probe heaters on the right side of the airplane inoperative – Avoid Icing Conditions.
- Autothrottle inoperative, Reference EPR is blank - Use manual throttle.
- LNAV and VNAV inoperative – Use HDG SEL or HDG HOLD and FLCH, V/S or ALT HOLD.

Do not accomplish the HEAT P/S R AUX non-normal procedure, end of procedure.

(3) In Section 2, Non-Normal Procedures, add the ''HEAT P/S L AUX'' paragraph to include the information in figure 3 to paragraph (g)(3) of this AD.

Figure 3 to paragraph (g)(3) – *AFM Revision: Heat P/S Left Auxiliary*

PITOT-STATIC PROBE HEAT (CONTINUED) (Required by AD 2022-15-07)

HEAT P/S L AUX

The HEAT P/S L AUX message indicates that left auxiliary pitot static probe heat is failed. This procedure objective is to determine whether more than one probe heat is failed, and to select air data sources to minimize or to prevent erroneous flight instrument indications.

Disengage the autopilot.

If EICAS message HEAT P/S L AUX is displayed and HEAT P/S CAPT is blank, place the captain's air data source selector to C and the first officer's air data source selector to L. Engage the L or C autopilot, if needed. Avoid Icing Conditions. Flight in icing conditions can result in unreliable standby flight instrument indications, end of procedure.

[Disengage the autopilot.]

If EICAS messages HEAT P/S L AUX and HEAT P/S CAPT are both displayed, place the captain's air data source selector to C. Engage any autopilot, if needed. Avoid icing conditions. Flight in icing conditions can result in unreliable standby flight instrument indications.

Note Inoperative Items:

- Both pitot probe heaters on the left side of the airplane are inoperative – Avoid Icing Conditions.
- Autothrottle inoperative, Reference EPR is blank - Use manual throttle.
- LNAV and VNAV inoperative – Use HDG SEL or HDG HOLD and FLCH, V/S or ALT HOLD.

Do not accomplish the HEAT P/S CAPT non-normal procedure, end of procedure.

(4) In Section 2, Non-Normal Procedures, add the ''HEAT P/S R AUX'' paragraph to include the information in figure 4 to paragraph (g)(4) of this AD.

Figure 4 to paragraph (g)(4) – *AFM Revision: Heat P/S Right Auxiliary*

PITOT-STATIC PROBE HEAT (CONTINUED) (Required by AD 2022-15-07)

HEAT P/S R AUX

The HEAT P/S R AUX message indicates that right auxiliary pitot static probe heat is failed. This procedure objective is to determine whether more than one probe heat is failed, and to select air data sources to minimize or to prevent erroneous flight instrument indications.

Disengage the autopilot.

If EICAS message HEAT P/S R AUX is displayed and HEAT P/S F/O is blank, place the captain's air data source selector to R and the first officer's air data source selector to C. Engage the R autopilot, if needed, end of procedure.

[Disengage the autopilot.]

If EICAS messages HEAT P/S R AUX and HEAT P/S F/O are both displayed, engage the L or C autopilot, if needed. R autopilot is unreliable in icing conditions. Avoid icing conditions. Flight in icing conditions can result in unreliable first officer's flight instrument indications.

Note Inoperative Items:

- Both pitot probe heaters on the right side of the airplane are inoperative – Avoid Icing Conditions.
- Autothrottle inoperative, Reference EPR is blank - Use manual throttle.
- LNAV and VNAV inoperative – Use HDG SEL or HDG HOLD and FLCH, V/S or ALT HOLD.

Do not accomplish the HEAT P/S F/O non-normal procedure, end of procedure.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(2) of this AD. Information may be emailed to: *9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.*

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(i) Related Information

(1) For more information about this AD, contact Huey Ton, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712–4137; phone: 562–627–5320; email: *huey.ton@faa.gov.*

(2) For information about AMOCs, contact Frank Carreras, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206–231–3539; email: *frank.carreras@faa.gov.*

(j) Material Incorporated by Reference

None.

Issued on July 15, 2022.

Christina Underwood,

Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–16607 Filed 8–10–22; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0462; Project Identifier MCAI–2021–00647–T; Amendment 39–22104; AD 2022–13–18]

RIN 2120–AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737–700, 737–800, 747–400, 747–8, 767–400ER, and 777–200 airplanes. This AD was prompted by a report that there is the potential for electrical current to pass through low pressure (LP) oxygen flex-hoses in the gaseous passenger oxygen system. This AD requires replacing each conductive oxygen flex-hose installed on LP gaseous passenger oxygen systems with a serviceable non-conductive oxygen flex-hose. This AD also prohibits installation of a conductive oxygen flex-hose on LP gaseous passenger oxygen systems. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective September 15, 2022.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 15, 2022.

ADDRESSES: For service information identified in this final rule, contact Lufthansa Technik AG, Weg beim Jäger 193 22335 Hamburg, Germany; telephone 49–40–5070–67428; internet *www.lufthansa-technik.com.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available on the internet at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0462.

Examining the AD Docket

You may examine the AD docket on the internet at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0462; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email *9-avs-nyaco-cos@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021–0135, dated June 2, 2021 (EASA AD 2021–0135) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain The Boeing Company Model 737–700, 737–800, 747–400, 747–8, 767–400ER, and 777–200 airplanes with certain Lufthansa Technik AG supplemental type certificates (STCs), which resulted in the installation of conductive oxygen flex-hoses. You may examine the MCAI in the AD docket on the internet at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0462.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737–700, 737–800, 747–400, 747–8, 767–400ER, and 777–200 airplanes. The NPRM published in the **Federal Register** on April 22, 2022 (87 FR 24073). The NPRM was prompted by a report that there is the potential for electrical current to pass through LP oxygen flex-hoses in the gaseous passenger oxygen system. Exposure to electrical faults, such as unintended short circuits, can result in localized electrical heating of the LP oxygen flex-hoses. The NPRM proposed to require replacing each conductive oxygen flex-hose installed on LP gaseous passenger oxygen systems with a serviceable non-conductive oxygen flex-hose. The FAA is issuing this AD to address the possibility of electrical current passing through the LP oxygen flex-hoses in the gaseous passenger oxygen system, which could cause the flex-hoses to melt or burn and result in an oxygen-fed fire in the passenger cabin. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from Boeing who supported the NPRM without change. The FAA also received a comment from United Airlines who stated that the NPRM does not apply to any of its airplanes.

Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing stated that the installation of winglets per STC ST00830SE does not affect the accomplishment of the manufacturer's service instructions. The commenter noted that this STC is for the applicable Model 737–700 and 737–800 airplanes identified in the proposed AD and that it does not have any STCs for the other models in the proposed AD.

The FAA agrees with the commenter that STC ST00830SE does not affect the accomplishment of the manufacturer's service instructions. Therefore, the installation of STC ST00830SE does not affect the ability to accomplish the actions required by this AD. The FAA has not changed this AD in this regard.

Clarification of AD Applicability Revision

Paragraph (c) of the proposed AD referred only to FAA STC ST04127NY that the FAA has since determined only applies to a modification of a Boeing Model 747–8 airplane that included the installation of conductive oxygen flex-hoses. The FAA intended the AD applicability to not be limited to just manufacturer serial number (MSN) 37500 that was modified by STC ST04127NY, but to all MSNs identified in the proposed AD that were modified by a Lufthansa Technik AG STC, which resulted in the installation of conductive oxygen flex-hoses. Therefore, the FAA has determined that including reference to the STCs that installed the conductive oxygen flex-hoses is redundant and unnecessary. Paragraph (c) of this AD has been revised in order to clarify this AD is applicable to the MSNs identified in paragraph (c) of this AD that have conductive oxygen flex-hoses specified in paragraph (g) of this AD.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information Under 1 CFR Part 51

Lufthansa Technik AG has issued the following service information.

- Lufthansa Technik Design Change Summary ASN–00–DCS–01, Revision 8, dated November 5, 2020.
- Lufthansa Technik Design Change Summary ATB–25–DCS–01, Revision 10, dated January 7, 2021.
- Lufthansa Technik Design Change Summary ATR–23–DCS–01, Revision 2, dated January 7, 2021.
- Lufthansa Technik Design Change Summary BCM–35–DCS–01, dated January 4, 2021.
- Lufthansa Technik Design Change Summary BCP–35–DCS–01, Revision 1, dated April 20, 2021.
- Lufthansa Technik Design Change Summary BCQ–35–DCS–01, Revision 1, dated April 20, 2021.
- Lufthansa Technik Design Change Summary BCR–35–DCS–01, Revision 1, dated April 20, 2021.
- Lufthansa Technik Design Change Summary BCS–35–DCS–01, dated January 5, 2021.
- Lufthansa Technik Design Change Summary BCU–35–DCS–01, dated January 5, 2021.
- Lufthansa Technik Design Change Summary BCV–35–DCS–01, dated February 4, 2021.
- Lufthansa Technik Design Change Summary BCW–35–DCS–01, dated January 4, 2021.
- Lufthansa Technik Design Change Summary BCX–35–DCS–01, Revision 1, dated February 4, 2021.

This service information describes procedures for replacing each conductive oxygen flex-hose installed on LP gaseous passenger oxygen systems with a serviceable non-conductive oxygen flex-hose. These documents are distinct since they apply to different airplane models and manufacturer serial numbers.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Costs of Compliance

The FAA estimates that this AD will affect 7 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 17 work-hours × $85 per hour = Up to $1,445	$10,090	Up to $11,535	Up to $80,745.

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.

The FAA is 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

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 that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

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 airworthiness directive:

2022–13–18 The Boeing Company: Amendment 39–22104; Docket No. FAA–2022–0462; Project Identifier MCAI–2021–00647–T.

(a) Effective Date

This airworthiness directive (AD) is effective September 15, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737–700, 737–800, 747–400, 747–8, 767–400ER, and 777–200 airplanes, certificated in any category, manufacturer serial numbers (MSN) 28551, 28961, 29953, 30791, 30884, 32445, 32575, 32915, 32970, 32971, 33010, 33102, 33361, 33684, 34205, 37500, and 37544, with conductive oxygen flex-hose having part number specified in paragraph (g) of this AD.

(d) Subject

Air Transport Association (ATA) of America Code 35, Oxygen.

(e) Unsafe Condition

This AD was prompted by a report that there is the potential for electrical current to pass through low pressure (LP) oxygen flex-hoses in the gaseous passenger oxygen system. The FAA is issuing this AD to address this condition, which could cause the flex-hoses to melt or burn and result in an oxygen-fed fire in the passenger cabin.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Replacement

Within 48 months after the effective date of this AD: Replace each conductive oxygen flex-hose installed on LP gaseous passenger oxygen systems with a serviceable non-

conductive oxygen flex-hose, in accordance with the Accomplishment Instructions of the applicable Lufthansa Technik Design Change Summary (TS–145 Installation Document Number) corresponding to the affected part numbers specified in figure 1 to paragraph (g) of this AD.

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Figure 1 to paragraph (g) – *Service Information*[1]

Model–	Lufthansa Technik Design Change Summary –	Prohibited Conductive Oxygen Flex-Hose Having Part Number (P/N) –	Serviceable Non-Conductive Flex-Hose Having Part Number (P/N) –
737-700 airplanes	BCP-35-DCS-01, Revision 1, dated April 20, 2021	57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57211Nxxx
737-800 airplanes	BCQ-35-DCS-01, Revision 1, dated April 20, 2021	38001-xxx (except for P/N 38001-6xx, which is already a non-conductive hose)	38055xxxN
			57211Nxxx
	BCR-35-DCS-01, Revision 1, dated April 20, 2021	38001-xxx (except for P/N 38001-6xx, which is already a non-conductive hose)	38055xxxN
		57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57211Nxxx
		57211-xxx	
	BCS-35-DCS-01, dated January 5, 2021	57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57211Nxxx
		38001-xxx (except for P/N 38001-6xx, which is already a non-conductive hose)	38055xxxN

Model–	Lufthansa Technik Design Change Summary –	Prohibited Conductive Oxygen Flex-Hose Having Part Number (P/N) –	Serviceable Non-Conductive Flex-Hose Having Part Number (P/N) –
747-400 airplanes	BCX-35-DCS-01, Revision 1, dated February 4, 2021	38001-xxx (except for P/N 38001-6xx, which is already a non-conductive hose)	38055xxxN
			57297Nxxx
		57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57211Nxxx
	BCU-35-DCS-01, dated January 5, 2021	38001-xxx (except for P/N 38001-6xx, which is already a non-conductive hose)	38055xxxN
		57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57211Nxxx
		55017-xxx	
		57211-xxx	
	BCV-35-DCS-01, dated February 4, 2021	38001-xxx (except for P/N 38001-6xx, which is already a non-conductive hose)	38055xxxN
			57297Nxxx
		55017-xxx	57211Nxxx
		57211-xxx	
	BCW-35-DCS-01, dated January 4, 2021	57021-xxx	57211Nxxx
		57211-xxx	
747-8 airplanes	ASN-00-DCS-01, Revision 8, dated November 5, 2020	57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57297Nxxx
	ATB-25-DCS-01, Revision 10, dated January 7, 2021	57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57297Nxxx
		57021-xxx	57211Nxxx
767-400ER airplanes	ATR-23-DCS-01, Revision 2, dated January 7, 2021	60B50060-x	57297Nxxx
777-200 airplanes	BCM-35-DCS-01, dated January 4, 2021	57034-xxx (except for P/N 57034-xxNxxx, which is already a non-conductive hose)	57297Nxxx
		57071-xxx	57211Nxxx
		57073-xxx	
[1] The "x" used in this figure can be any combination and number of numerals and letters.			

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(h) Parts Installation Prohibition

As of the effective date of this AD, no person may install a prohibited conductive oxygen flex-hose specified in figure 1 to paragraph (g) of this AD, on LP gaseous passenger oxygen systems on any airplane.

(i) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information in paragraphs (i)(1) through (6) of this AD.

(1) Lufthansa Technik Design Change Summary ASN–00–DCS–01, Revision 6, dated June 25, 2020.

(2) Lufthansa Technik Design Change Summary ASN–00–DCS–01, Revision 7, dated August 26, 2020.

(3) Lufthansa Technik Design Change Summary BCP–35–DCS–01, dated January 5, 2021.

(4) Lufthansa Technik Design Change Summary BCQ–35–DCS–01, dated January 7, 2021.

(5) Lufthansa Technik Design Change Summary BCR–35–DCS–01, dated January 7, 2021.

(6) Lufthansa Technik Design Change Summary BCX–35–DCS–01, dated January 7, 2021.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or the European Union Aviation Safety Agency (EASA); or Lufthansa Technik AG's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2021–0135, dated June 2, 2021, for related information. This MCAI may be found in the AD docket on the internet at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0462.

(2) For more information about this AD, contact Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email *9-avs-nyaco-cos@faa.gov.*

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (l)(4) and (5) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Lufthansa Technik Design Change Summary ASN–00–DCS–01, Revision 8, dated November 5, 2020.

(ii) Lufthansa Technik Design Change Summary ATB–25–DCS–01, Revision 10, dated January 7, 2021.

(iii) Lufthansa Technik Design Change Summary ATR–23–DCS–01, Revision 2, dated January 7, 2021.

(iv) Lufthansa Technik Design Change Summary BCM–35–DCS–01, dated January 4, 2021.

(v) Lufthansa Technik Design Change Summary BCP–35–DCS–01, Revision 1, dated April 20, 2021.

(vi) Lufthansa Technik Design Change Summary BCQ–35–DCS–01, Revision 1, dated April 20, 2021.

(vii) Lufthansa Technik Design Change Summary BCR–35–DCS–01, Revision 1, dated April 20, 2021.

(viii) Lufthansa Technik Design Change Summary BCS–35–DCS–01, dated January 5, 2021.

(ix) Lufthansa Technik Design Change Summary BCU–35–DCS–01, dated January 5, 2021.

(x) Lufthansa Technik Design Change Summary BCV–35–DCS–01, dated February 4, 2021.

(xi) Lufthansa Technik Design Change Summary BCW–35–DCS–01, dated January 4, 2021.

(xii) Lufthansa Technik Design Change Summary BCX–35–DCS–01, Revision 1, dated February 4, 2021.

(3) For service information identified in this AD, contact Lufthansa Technik AG, Weg beim Jäger 193 22335 Hamburg, Germany; telephone 49–40–5070–67428; internet *www.lufthansa-technik.com.*

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email *fr.inspection@nara.gov,* or go to: *www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on June 17, 2022.

Christina Underwood,

Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–16612 Filed 8–10–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2022–0025; Airspace Docket No. 21–ACE–2]

RIN 2120–AA66

Amendment of Multiple Air Traffic Service (ATS) Routes and Establishment of Area Navigation (RNAV) Routes in the Vicinity of Liberal, KS

Correction

In rule document 2022–13844, appearing on pages 38916–38919, in the issue of Thursday, June 30, 2022, make the following correction.

§ 71.1 [Corrected]

■ On page 38918, beginning in the third column, 2006 United States Area Navigation Routes is corrected to read as follows:

Q–176 Cimarron, NM (CIM) to OTTTO, VA [Amended]

Cimarron, NM (CIM)	VORTAC	(Lat. 36°29′29.03″ N, long. 104°52′19.20″ W)
KENTO, NM	WP	(Lat. 36°44′19.10″ N, long. 103°05′57.13″ W)
TOTOE, KS	WP	(Lat. 37°02′40.21″ N, long. 100°58′16.87″ W)
WRIGL, KS	WP	(Lat. 37°44′42.79″ N, long. 097°35′02.52″ W)
Butler, MO (BUM)	VORTAC	(Lat. 38°16′19.49″ N, long. 094°29′17.74″ W)
St Louis, MO (STL)	VORTAC	(Lat. 38°51′38.48″ N, long. 090°28′56.52″ W)
GBEES, IN	WP	(Lat. 38°41′54.72″ N, long. 085°10′13.03″ W)
BICKS, KY	WP	(Lat. 38°38′29.92″ N, long. 084°25′20.82″ W)
Henderson, WV (HNN)	DME	(Lat. 38°45′14.85″ N, long. 082°01′34.20″ W)
OTTTO, VA	WP	(Lat. 38°51′15.81″ N, long. 078°12′20.01″ W)

* * * * *

[FR Doc. C1–2022–13844 Filed 8–10–22; 8:45 am]

BILLING CODE 0099–10–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 89

[Docket No. FAA–2022–0859]

Accepted Means of Compliance; Remote Identification of Unmanned Aircraft

AGENCY: Federal Aviation Administration, Department of Transportation (DOT).

ACTION: Acceptable means of compliance; notice of availability.

SUMMARY: This document announces the acceptance of a means of compliance (MOC) in accordance with a rule issued by the FAA on January 21, 2021, that went into effect on April 21, 2021. The Administrator accepts ASTM, International (ASTM) F3586–22, with additions identified in this document as an acceptable means, but not the only means, of demonstrating compliance with the requirements for producing standard remote identification unmanned aircraft and remote identification broadcast modules.

DATES: August 11, 2022.

FOR FURTHER INFORMATION CONTACT:

FAA Contact: Avi Acharya, Communications, Surveillance & Traffic, AIR–622, Technical Innovation Policy Branch, Policy and Innovation Division, Aircraft Certification Service, Federal Aviation Administration, AIR–600: 800 Independence Ave. SW, Washington, DC 20591; telephone 1–844–FLY–MY–UA; email: *UASHelp@faa.gov.*

ASTM Contact: Gabriel Cox, Chair, ASTM Remote ID Workgroup, 2610 NE 9th Drive, Hillsboro, OR 97124; telephone: 503–941–0099; email: *gabriel.c.cox@intel.com.*

SUPPLEMENTARY INFORMATION:

Background

Title 14 Code of Federal Regulations, part 89 establishes remote identification requirements for unmanned aircraft operated in the airspace of the United States. With a few exceptions, unmanned aircraft produced for operation in the airspace of the United States are subject to the production requirements of part 89. A person producing a standard remote identification unmanned aircraft or remote identification broadcast module for operation in the United States must show that the unmanned aircraft or broadcast module meets the requirements of subpart D of part 89 by following an FAA-accepted means of compliance (MOC).

An FAA-accepted MOC describes one means by which a person may comply with the minimum performance requirements for remote identification in subpart D of part 89. To be accepted by the FAA, an MOC must meet the requirements of both subparts D and E of part 89. An MOC must address the minimum performance requirements, as well as the testing and validation necessary to demonstrate compliance with the part 89 subpart D requirements. The FAA indicates its acceptance of an MOC by publishing a Notice of Availability in the **Federal Register** identifying the MOC as accepted and informing the applicant of its acceptance.[1]

Means of Compliance Accepted in This Policy

On May 13, 2022, ASTM submitted ''Standard Practice for Remote ID Means of Compliance to Federal Aviation Administration Regulation 14 CFR part 89'', ASTM Reference Number F3586–22, to the FAA for acceptance. To be accepted, ASTM F3586–22 must adequately address all of the requirements of subparts D and E of part 89 so that any standard remote identification unmanned aircraft or remote identification broadcast module designed and produced in accordance with ASTM F3586–22 would meet the performance requirements of subpart D.

The FAA has reviewed, and accepts ASTM F3586–22 as an MOC to the requirements of part 89, subpart D with additions. The FAA has determined additions to be necessary because Section 7.5.2 of ASTM F3586–22, requiring specific items to be masked from user input, does not adequately ensure compliance with the tamper resistance requirement of §§ 89.310 and 89.320. The FAA-accepted MOC provided in this policy therefore is comprised of ASTM F3586–22 with the following additions:

1. The remote identification system shall protect the part 89-required broadcasted message from being altered or disabled by any person.

2. The remote identification system shall incorporate techniques or methods that reduce the ability of any person to physically and functionally modify or disable any aspect or component of the remote identification system that could impact compliance with the remote identification rule.

3. In applying Section 7.5.2 of ASTM F3586–22, the applicant shall determine whether masking the specified items from user input adequately provides the functional tamper resistance protection specified by this means of compliance, and if it does not, shall incorporate additional functional tamper resistance techniques or methods in accordance with this means of compliance.

Tracking Number

Producers submitting a Declaration of Compliance to the FAA declaring the standard remote identification unmanned aircraft or remote identification broadcast module meets the requirements of this FAA-accepted MOC which includes all provisions of ASTM F3586–22 and the additions identified in this document, must include the following tracking number: RID–ASTM–F3586–22–NOA–22–01.

Availability

ASTM F3586–22, ''Standard Practice for Remote ID Means of Compliance to Federal Aviation Administration Regulation 14 CFR part 89'', is available online at *https://www.astm.org/f3586-22.html.* ASTM copyrights these consensus standards and charges the public a fee for service. Individual downloads or reprints of a standard (single or multiple copies, or special compilations and other related technical information) may be obtained through *www.astm.org.* The FAA maintains a list of accepted means of compliance on the FAA website at *https://uasdoc.faa.gov/listMOC.* This document serves as acceptance by the Federal Aviation Administration of the ASTM Remote Identification Standard F3586–22 with additions specified in this document as a means of compliance for meeting the requirements of part 89, subpart D.

Issued in Kansas City, Missouri, on August 3, 2022.

Patrick R. Mullen,

Manager, Technical Innovation Policy Branch, Policy and Innovation Division, Aircraft Certification Service.

[FR Doc. 2022–16997 Filed 8–10–22; 8:45 am]

BILLING CODE 4910–13–P

[1] 14 CFR part 89, subpart D.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 118

[Docket No. FDA–2000–N–0190 (Formerly Docket No. 2000N–0504)]

Prevention of Salmonella Enteritidis in Shell Eggs During Production, Storage, and Transportation (Layers With Access to Areas Outside the Poultry House): Questions and Answers Regarding the Final Rule; Guidance for Industry; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notification of availability.

SUMMARY: The Food and Drug Administration (FDA or we) is announcing the availability of a final guidance for industry entitled ''Prevention of *Salmonella* Enteritidis in Shell Eggs During Production, Storage, and Transportation (Layers with Access to Areas Outside the Poultry House): Questions and Answers Regarding the Final Rule.'' The guidance is intended to provide information to egg producers on certain provisions contained in FDA's final rule entitled ''Prevention of *Salmonella* Enteritidis in Shell Eggs During Production, Storage, and Transportation'' (the egg rule) that reference the ''poultry house.'' Specifically, the document provides guidance to shell egg producers whose production systems provide laying hens with access to areas outside of a ''poultry house'' as that term is defined in the egg rule.

DATES: The announcement of the guidance is published in the **Federal Register** on August 11, 2022.

ADDRESSES: You may submit either electronic or written comments on FDA guidances at any time as follows:

Electronic Submissions

Submit electronic comments in the following way:

• *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to *https://www.regulations.gov* will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on *https://www.regulations.gov.*

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see ''Written/Paper Submissions'' and ''Instructions'').

Written/Paper Submissions

Submit written/paper submissions as follows:

• *Mail/Hand Delivery/Courier (for written/paper submissions):* Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

• For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in ''Instructions.''

Instructions: All submissions received must include the Docket No. FDA–2000–N–0190 for ''Prevention of Salmonella Enteritidis in Shell Eggs During Production, Storage, and Transportation (Layers with Access to Areas Outside the Poultry House): Questions and Answers Regarding the Final Rule.'' Received comments will be placed in the docket and, except for those submitted as ''Confidential Submissions,'' publicly viewable at *https://www.regulations.gov* or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, 240–402–7500.

• Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states ''THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.'' We will review this copy, including the claimed confidential information, in our consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on *https://www.regulations.gov.* Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as ''confidential.'' Any information marked as ''confidential'' will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: *https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf.*

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to *https://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the ''Search'' box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852, 240–402–7500.

You may submit comments on any guidance at any time (see 21 CFR 10.115(g)(5)).

Submit written requests for single copies of the guidance to the Division of Plant and Dairy Food Safety/Office of Food Safety, Center for Food Safety and Applied Nutrition, Food and Drug Administration, 5001 Campus Dr., College Park, MD 20740. Send two self-addressed adhesive labels to assist that office in processing your request. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the guidance.

FOR FURTHER INFORMATION CONTACT: Nancy Bufano, Center for Food Safety and Applied Nutrition, Food and Drug Administration, 5001 Campus Dr., College Park, MD 20740, 240–402–1493; or Marquita Steadman, Center for Food Safety and Applied Nutrition, Office of Regulations and Policy (HFS–024), Food and Drug Administration, 5001 Campus Dr., College Park, MD 20740, 240–402–2378.

SUPPLEMENTARY INFORMATION:

I. Background

We are announcing the availability of a guidance for industry entitled ''Prevention of *Salmonella* Enteritidis in Shell Eggs During Production, Storage, and Transportation (Layers with Access to Areas Outside the Poultry House): Questions and Answers Regarding the Final Rule.'' We are issuing this guidance consistent with our good guidance practices regulation (21 CFR 10.115). The guidance represents our current thinking on how to interpret the requirements in the egg rule with regard to production systems that provide laying hens with access to areas outside of a ''poultry house'' as that term is defined in 21 CFR 118.3, including

questions and answers on coverage; definitions; *Salmonella* Enteritidis (SE) prevention measures; and environmental sampling for SE. It does not establish any rights for any person and is not binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the applicable statutes and regulations.

In the **Federal Register** of July 9, 2009 (74 FR 33030), FDA issued the egg rule requiring shell egg producers to implement measures to prevent SE from contaminating eggs on the farm and from further growth during storage and transportation, and requiring these producers to maintain records concerning their compliance with the egg rule and to register with FDA. The egg rule became effective September 8, 2009, with a compliance date of July 9, 2010, for producers with 50,000 or more laying hens. For producers with fewer than 50,000, but at least 3,000 laying hens, the compliance date was July 9, 2012. Producers with fewer than 3,000 laying hens and those that sell all of their eggs directly to consumers are exempt from requirements in the egg rule. The egg rule is codified at part 118 (21 CFR part 118).

In the **Federal Register** of July 24, 2013 (78 FR 44483), we made available a draft guidance entitled ''Guidance for Industry: Questions and Answers Regarding the Final Rule, Prevention of *Salmonella* Enteritidis in Shell Eggs During Production, Storage, and Transportation (Layers with Outdoor Access)'' and gave interested parties an opportunity to submit comments by September 23, 2013, for us to consider before beginning work on the final version of the guidance. We received more than 3,000 comments on the draft guidance and have modified the content, where appropriate, for this final guidance. In the draft guidance, we indicated that we consider porches to be part of the poultry house because we considered them to be part of a structure used to house poultry. However, comments to the draft guidance indicated that, from a structural perspective, the difference between a porch and an outdoor run (whether an outdoor run-row style or an outdoor run-attached run style) was the presence of a roof, in some cases concrete flooring, and the height of the fence. We considered these comments and upon further analysis determined those differences do not warrant considering one of these systems different from the other two. We have concluded that our initial interpretation did not fully consider how the term ''structure'' is used within the context of 21 CFR 118.3, particularly with respect to the goal of housing poultry and considering factors such as protection from the elements and from predation and control of temperature, humidity, and lighting. Accordingly, in this final guidance, we consider a porch to be an area outside the poultry house rather than part of the poultry house. Other changes to the guidance include listing additional guidance documents that egg producers should be aware of, and adding additional references to support the statement that wild birds are common vectors of SE. In addition, we made editorial changes to improve clarity and removed certain recommendations based on practicality. The guidance announced in this notice finalizes the draft guidance dated July 2013.

II. Paperwork Reduction Act of 1995

While this guidance contains no collection of information, it does refer to previously approved FDA collections of information. Therefore, clearance by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3521) is not required for this guidance. The previously approved collections of information are subject to review by OMB under the PRA. The collections of information in part 118 have been approved under OMB control number 0910–0660.

III. Electronic Access

Persons with access to the internet may obtain the guidance at *https://www.fda.gov/FoodGuidances, https://www.fda.gov/regulatory-information/search-fda-guidance-documents,* or *https://www.regulations.gov.* Use the FDA website listed in the previous sentence to find the most current version of the guidance.

Dated: August 5, 2022.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2022–17247 Filed 8–10–22; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 100

[Docket No. USCG–2022–0645]

Special Local Regulation; Olympia Harbor Days Tug Boat Races, Budd Inlet, WA

AGENCY: Coast Guard, DHS.

ACTION: Notification of enforcement of regulation.

SUMMARY: The Coast Guard will enforce special local regulations for the Olympia Harbor Days Tug Boat Races, Budd, Inlet, WA, from 11 a.m. until 4 p.m. on September 3, 2022. This action is necessary to limit vessel movement within the specified race area immediately prior to, during, and immediately after racing activity in order to ensure the safety of participants, spectators, and the maritime public. During the enforcement periods, the operator of any vessel in the regulated area must comply with directions from the Patrol Commander or any Official Patrol displaying a Coast Guard ensign.

DATES: The regulations in 33 CFR 100.1309 will be enforced from 11 a.m. until 4 p.m. on September 3, 2022.

FOR FURTHER INFORMATION CONTACT: If you have questions about this notice of enforcement, call or email Lieutenant Peter McAndrew, Sector Puget Sound Waterways Management Division, U.S. Coast Guard; telephone 206–217–6051, email *SectorPugetSoundWWM@uscg.mil.*

SUPPLEMENTARY INFORMATION: The Coast Guard will enforce special local regulations for the Olympia Harbor Days Tug Boat Races, Budd Inlet, WA regulated area detailed in 33 CFR 100.1309(a), which encompasses approximately 2 nautical miles of the navigable waters in Budd Inlet south of Big Tykle Cove to west of Priest Point.

Under the provisions of 33 CFR 100.1309, the regulated area shall be closed immediately prior to, during, and immediately after the event to all persons and vessels not participating in the event and authorized by the event sponsor. This action is necessary to ensure the safety of participants, spectators, and the maritime public. During the enforcement periods, if you are the operator of a vessel in the regulated area you must comply with directions from the Patrol Commander or any Official Patrol displaying a Coast Guard ensign. All persons or vessels who desire to enter the race area while it is enforced must obtain permission from the on-scene patrol craft on VHF–FM channel 13.

In addition to this notice of enforcement in the **Federal Register**, the Coast Guard will provide notification of this enforcement period via the Local Notice to Mariners. If the Captain of the Port determines that the regulated area need not be enforced for the full duration stated in this notice, he may use a Broadcast Notice to Mariners to

grant general permission to enter the regulated area.

Dated: August 5, 2022.

P.M. Hilbert,

Captain, U.S. Coast Guard, Captain of the Port, Sector Puget Sound.

[FR Doc. 2022–17285 Filed 8–10–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2022–0673]

RIN 1625–AA00

Safety Zone; Grosse Pointe Farms Fireworks, Lake St. Clair, Grosse Pointe Farms, MI

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary safety zone for certain navigable waters within Lake St. Clair in Grosse Pointe Farms, MI. The safety zone is needed to protect personnel, vessels, and the marine environment from potential hazards during a fireworks event. Entry of vessels or persons into this zone is prohibited unless specifically authorized by the Captain of the Port (COTP) Detroit.

DATES: This rule is effective from 9:30 p.m. on September 3, 2022, through 10:30 p.m. on September 4, 2022.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to *https://www.regulations.gov,* type USCG–2022–0673 in the ''SEARCH'' box and click ''SEARCH.'' Click on Open Docket Folder on the line associated with this rule.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Ms. Tracy Girard, U.S. Coast Guard; (313) 475–7475, *Tracy.M.Girard@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

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

II. Background Information and Regulatory History

The Coast Guard is issuing this temporary 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 doing so is impracticable. The Coast Guard did not receive notice of the fireworks with sufficient time to undergo notice and comment. We must establish this safety zone by September 3, 2022 in order to protect the public form the hazards associated with a fireworks event.

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**. Delaying the effective date of this rule would be impracticable because immediate action is needed to respond to the potential safety hazards associated with a fireworks display.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70034 (previously 33 U.S.C. 1231). The Captain of the Port Detroit (COTP) has determined that potential hazards associated with fireworks starting September 3, 2022, will be a safety concern for anyone within a 250-yard radius of the fireworks location. This rule is needed to protect personnel, vessels, and the marine environment in the navigable waters within the safety zone while fireworks show is being displayed.

IV. Discussion of the Rule

This rule establishes a safety zone from 9:30 p.m. through 10:30 p.m. on September 3, 2022. In the case of inclement weather on September 3, 2022, this safety zone will be enforced from 10 p.m. to 10:30 p.m. on September 4, 2022. The safety zone will cover all navigable waters within a 250 yard radius of location 42° 24.51′ N 082°52.97′ W (WGS 84). The duration of the zone is intended to protect personnel, vessels, and the marine environment in these navigable waters while the fireworks show is being displayed. No vessel or person will be permitted to enter the safety zone without obtaining permission from the COTP or a designated representative.

V. 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 and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This rule has not been designated a ''significant regulatory action,'' under Executive Order 12866. Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the size, location, duration, and time-of-day of the safety zone. Vessel traffic will be able to safely transit around this safety zone which will impact a small designated area of the Lake St. Clair for less than an hour during the night when vessel traffic is normally low. Moreover, the Coast Guard would issue a Broadcast Notice to Mariners via VHF–FM marine channel 16 about the zone, and the rule would allow vessels to seek permission to enter the zone.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 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 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.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section V.A above, this rule will not have a significant economic impact on any vessel owner or operator.

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 call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

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.

C. 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).

D. Federalism and Indian Tribal Governments

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 have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, 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.

E. 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.

F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (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 involves a safety zone lasting less then an hour that will prohibit entry within 250 yard radius of 42° 24.51′ N 082°52.97′ W (WGS 84). It is categorically excluded from further review under paragraph L[60] of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. A Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email 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.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and record keeping 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: 46 U.S.C. 70034, 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.2.

■ 2. Add § 165.T09–0673 to read as follows:

§ 165.T09–0673 Safety Zones; Grosse Pointe Farms Fireworks, Lake St. Clair, Grosse Pointe, MI.

(a) *Location.* This safety zone is established to encompass all U.S. navigable waters of Lake St. Clair within a 250-yard radius of 42° 24.51′ N 082°52.97′ W (WGS 84).

(b) *Enforcement period.* The safety zone described in paragraph (a) will be enforced from 9:30 p.m. to 10:30 p.m. on September 3, 2022. In the case of inclement weather on September 3, 2022, this safety zone will be enforced from 9:30 p.m. through 10:30 p.m. on September 4, 2022.

(c) *Regulations.* (1) In accordance with the general regulations in § 165.23, entry into, transiting, or anchoring within these safety zones is prohibited unless authorized by the COTP Detroit or a designated on-scene representative.

(2) The safety zones are closed to all vessel traffic, except as may be permitted by the COTP Detroit or a designated on-scene representative.

(3) The ''on-scene representative'' of the COTP Detroit is any Coast Guard commissioned, warrant or petty officer or a federal, state, or local law enforcement officer designated by the COTP Detroit to act on his behalf.

(4) Vessel operators desiring to enter or operate within the safety zones must contact the COTP Detroit or an on-scene representative to obtain permission to do so. The COTP Detroit or an on-scene representative may be contacted via VHF Channel 16. Vessel operators given permission to enter or operate in the safety zone must comply with all directions given to them by the COTP Detroit or an on-scene representative.

Dated: August 5, 2022.

Brad W. Kelly,

Captain, U. S. Coast Guard, Captain of the Port Detroit.

[FR Doc. 2022–17286 Filed 8–10–22; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2020–0718; FRL–9935–02–R4]

Air Plan Approval; NC: Inspection and Maintenance Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is finalizing approval of a State Implementation Plan (SIP) revision submitted by the State of North Carolina on December 14, 2020, through the Department of Environmental Quality (DEQ), Division of Air Quality (DAQ), for the purpose of removing Lee, Onslow, and Rockingham Counties from

North Carolina's motor vehicle inspection and maintenance (I/M) program. EPA is approving these changes pursuant to the Clean Air Act (CAA or Act).

DATES: This rule is effective September 12, 2022.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R04–OAR–2020–0718. All documents in the docket are listed on the *www.regulations.gov* website. Although listed in the index, some information may not be publicly available, *i.e.,* 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 *www.regulations.gov* or in hard copy at the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. EPA requests that, if at all possible, you contact the person 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 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Kelly Sheckler, Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. The telephone number is (404) 562–9222. Ms. Sheckler can also be reached via electronic mail at *sheckler.kelly@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Background and Overview

The DAQ submitted a SIP revision on December 14, 2020, seeking to remove Lee, Onslow, and Rockingham Counties from North Carolina's SIP-approved I/M program. The DAQ submitted this SIP revision in response to North Carolina legislation enacted in Session Law 2020–5, House Bill 85, which amended North Carolina General Statute section 143–215.107A(c) to remove these three counties from the North Carolina I/M Program.[1] Specifically, the North Carolina Act requires the elimination of Lee, Onslow, and Rockingham Counties from the I/M program and the retention of the I/M program in 19 counties (Alamance, Buncombe, Cabarrus, Cumberland, Davidson, Durham, Forsyth, Franklin, Gaston, Guilford, Iredell, Johnston, Lincoln, Mecklenburg, New Hanover, Randolph, Rowan, Union, and Wake).

Sections 187(a)(4) and 182(b)(4) of the CAA require the implementation of an I/M program in certain areas classified as moderate nonattainment or higher for the ozone or carbon monoxide (CO) NAAQS.[2] Lee, Onslow, and Rockingham Counties have never been designated nonattainment for ozone or CO (or any other NAAQS) and are currently in attainment for all NAAQS. These three counties were included in the State's I/M program to provide North Carolina with emissions credit for the NO_X SIP Call obligations. *See* 67 FR 66056 (October 30, 2002). The NO_X SIP Call, issued by EPA in 1998, required some states, including North Carolina, to meet statewide NO_X emission requirements during the ozone season (May 1 through September 30 control period) to reduce the amount of ground level ozone that is transported across the eastern United States. *See* 84 FR 8422 (March 8, 2019).

In a notice of proposed rulemaking (NPRM), published on June 22, 2022, EPA proposed to approve the removal of Lee, Onslow, and Rockingham Counties from North Carolina's SIP-approved I/M program (and consequently, the removal of reliance on credits gained from I/M emissions reductions from Lee, Onslow and Rockingham Counties in the State's NO_X Budget and Allowance Trading Program). *See* 87 FR 37280. As explained in the June 22, 2022, NPRM, EPA found that the removal of the I/M program for the Lee, Onslow, and Rockingham Counties would not impact North Carolina's ability to attain or maintain compliance with the NAAQS and would not interfere with the State's obligations under the NO_X SIP Call. Comments on the June 22, 2022, NPRM, were due on or before July 22, 2022. EPA did not receive any adverse comments on the June 22, 2022, NPRM.

II. Final Action

EPA is finalizing approval of North Carolina's December 14, 2020, SIP revision. Specifically, EPA is approving the removal of Lee, Onslow, and Rockingham Counties from the SIP-approved I/M program. Additionally, EPA finds that North Carolina's removal of the three counties from the SIP-approved I/M program (and the removal of reliance on the I/M emissions reductions generated from those counties as part of the ''credits'' in North Carolina's NO_X emissions budget) will not interfere with the State's obligations under the NO_X SIP Call to meet its Statewide NO_X emissions budget. EPA finds that the approval of this revision will not interfere with continued attainment or maintenance of any applicable NAAQS, or with any other applicable requirement of the CAA. EPA also finds that North Carolina's December 14, 2020, SIP submission satisfies the requirements of section 110(l) of the CAA.

III. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 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. 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 Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- 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

[1] The removal becomes effective the first day of a month that is sixty days after the State's Secretary of the DEQ certifies to the State's Revisor of Statutes that EPA approved the SIP revision.

[2] The I/M program was never a mandatory program pursuant to the CAA for Lee, Onslow, or Rockingham counties.

Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; 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).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it 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 CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by October 11, 2022. 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, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: August 1, 2022.

Daniel Blackman,

Regional Administrator, Region 4.

For the reasons stated in the preamble, the EPA amends 40 CFR part 52 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 II—North Carolina

■ 2. In § 52.1770 in paragraph (e), amend the table by adding a new entry for ''Removal of Lee, Onslow, and Rockingham Counties from North Carolina's Inspection and Maintenance Program and 110(l) Non-Interference Demonstration'' at the end to read as follows:

§ 52.1770 Identification of plan.

* * * * *

(e) * * *

EPA-APPROVED NORTH CAROLINA NON-REGULATORY PROVISIONS

Provision	State effective date	EPA approval date	**Federal Register** citation	Explanation
* * *	*	*	*	*
Removal of Lee, Onslow, and Rockingham Counties from North Carolina's Inspection and Maintenance Program and 110(l) Non-Interference Demonstration.	12/14/2020	8/11/2022	[Insert citation of publication].	

[FR Doc. 2022–16905 Filed 8–10–22; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R01–OAR–2022–0112; FRL–9734–02–R1]

Air Plan Approval; New Hampshire; Rules for Particulate Emissions From Open Sources

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving State Implementation Plan (SIP) revisions of New Hampshire Code of Administrative Rules Chapter Env-A 1000 submitted by the State of New Hampshire on January 8, 2020. Env-A 1000 establishes requirements for open burning, fugitive dust, and firefighter instruction and training activities. This action is being taken under the Clean Air Act.

DATES: This rule is effective on September 12, 2022.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R01–OAR–2022–0112. All documents in the docket are listed on the *www.regulations.gov* website. Although listed in the index, some information is not publicly available, *i.e.,* confidential business information (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 at *www.regulations.gov* or at the U.S. Environmental Protection Agency, EPA Region 1 Regional Office, Air and Radiation Division, 5 Post Office Square—Suite 100, 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 a.m. to 4:30 p.m., excluding legal holidays and facility closures due to COVID–19.

FOR FURTHER INFORMATION CONTACT: Pujarini Maiti, Air Quality Planning Unit, Air Programs Branch (Mail Code OEP05–02), U.S. Environmental Protection Agency, Region 1, 5 Post Office Square, Suite 100, Boston, Massachusetts 02109–3912; (617) 918–1625; *maiti.pujarini@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document whenever

''we,'' ''us,'' or ''our'' is used, we mean EPA.

Table of Contents

I. Background and Purpose
II. Final Action
III. Incorporation by Reference
IV. Statutory and Executive Order Reviews

I. Background and Purpose

On May 18, 2022 (87 FR 22821), EPA published a Notice of Proposed Rulemaking (NPRM) for the State of New Hampshire proposing to approve two SIP revisions submitted by the State. Information about the proposed SIP revisions are as follows.

On January 8, 2020, NH DES submitted revisions of New Hampshire Code of Administrative Rules Chapter Env-A 1000 (Prevention, Abatement, and Control of Open Source Air Pollution) and Env-A 2800 (Sand and Gravel Sources; Non-Metallic Mineral Processing Plants; Cement and Concrete Sources) to EPA for approval into the New Hampshire SIP. NH DES withdrew the January 2020 submission of Env-A 1000 to the SIP on July 19, 2021. On August 19, 2021, NH DES submitted another revision of Env-A 1000 to EPA for approval into the New Hampshire SIP. This regulation establishes requirements for open burning, fugitive dust, and firefighter instruction and training activities. NH DES submitted this revision to replace the current SIP-approved Env-A 1000 (83 FR 6972; February 16, 2018), which expired at the state level on May 1, 2019. The submittal also includes Appendices A and B, which provide references and definitions that are included in Env-A 1000. EPA has determined that the new version of Env-A 1000 is no less stringent than existing Env-A 1000 in the New Hampshire SIP and, therefore, meets requirements of section 110(l) of the Clean Air Act.

Herein, we are approving Env-A 1000. The rationale for this action is explained in the NPRM and will not be restated here. There were no public comments received on the NPRM.

At this time, we are not taking final action on Chapter Env-A 2800, which establishes requirements for particulate matter, visible emissions, and fugitive dust standards for sand and gravel sources, non-metallic mineral processing plants, and cement and concrete sources.

II. Final Action

EPA is approving and incorporating Env-A 1000 into the New Hampshire SIP, which was submitted by the State of New Hampshire on August 19, 2021. However, we are not finalizing our proposal to approve Env-A 2800 at this time, which was submitted on January 8, 2020. EPA will take action on Env-A 2800 at a later time.

III. Incorporation by Reference

In this rule, EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is finalizing the incorporation by reference of New Hampshire regulation Env-A 1000, effective August 1, 2019, as described in section I. of this preamble and set forth below in the amendments to 40 CFR part 52. The EPA has made, and will continue to make, these documents generally available through *www.regulations.gov* and at the EPA Region 1 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information). Therefore, these materials have been approved by EPA for inclusion in the State Implementation Plan, have been incorporated by reference by EPA into that plan, are fully federally enforceable under sections 110 and 113 of the CAA as of the effective date of the final rulemaking of EPA's approval, and will be incorporated by reference in the next update to the SIP compilation.[1]

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 proposed 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 proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- 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, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

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 October 11, 2022. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for

[1] 62 FR 27968 (May 22, 1997).

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, Carbon monoxide, Incorporation by reference, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: July 28, 2022.

David Cash,

Regional Administrator, EPA Region 1.

Part 52 of 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 EE—New Hampshire

■ 2. In § 52.1520, amend the table in paragraph (c) by revising the entry ''Env-A 1000'' to read as follows:

§ 52.1520 Identification of plan.

* * * * *

(c) * * *

EPA-APPROVED NEW HAMPSHIRE REGULATIONS

State citation	Title/subject	State effective date	EPA approval date [1]	Explanations
*	*	*	*	*
Env-A 1000	Control of Open Burning	8/1/2019	8/11/2022	Approve the amended Part Env-A 1000 ''Prevention, Abatement and Control of Open Source Air Pollution'' to supersede the previously SIP-approved version.
*	*	*	*	*

[1] In order to determine the EPA effective date for a specific provision listed in this table, consult the **Federal Register** notice cited in this column for the particular provision.

[FR Doc. 2022–16601 Filed 8–10–22; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R4–OAR–2022–0225; FRL–9912–02–R4]

Air Plan Approval; Kentucky; Removal of Excess Emissions Provisions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving a State Implementation Plan (SIP) revision submitted by the Kentucky Energy and Environment Cabinet (Cabinet), on November 17, 2016, on behalf of the Commonwealth of Kentucky (Commonwealth). The revision was submitted in response to the EPA's SIP call published on June 12, 2015, concerning excess emissions during startup, shutdown, and malfunction (SSM) events. The submittal requests the revision of provisions identified in the 2015 SIP call for the Kentucky SIP. EPA is approving the SIP revision and finds that such SIP revision corrects the deficiencies identified in the June 12, 2015, SIP call.

DATES: This rule is effective September 12, 2022.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R4–OAR–2022–0225. All documents in the docket are listed on the *www.regulations.gov* website. Although listed in the index, some information may not be publicly available, *i.e.,* 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 *www.regulations.gov* or in hard copy at the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. EPA requests that if at all possible, you contact the person 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 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Estelle Bae, Air Permitting Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. Ms. Bae can be reached by telephone at (404) 562–9143 or via electronic mail at *bae.estelle@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

On June 7, 2022, EPA proposed to approve a SIP revision submitted by the Commonwealth through the Cabinet on November 17, 2016. *See* 87 FR 34612. In that proposal, EPA also proposed to determine that the SIP revision corrects the deficiency with respect to Kentucky that the Agency identified in the June 12, 2015, action titled ''State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction,'' 80 FR 33839 (June 12, 2015), hereinafter referred to as the ''2015 SSM SIP Action.'' The reasons for the proposed approval and determination are stated in the June 7, 2022, proposed action and

will not be restated here. The public comment period for EPA's proposed approval and determination ended on July 7, 2022, and EPA received one comment in support of the proposal, which is available in the docket for this action. Therefore, EPA is finalizing the action as proposed.

II. Final Action

EPA is approving the Commonwealth's November 17, 2016, SIP submission requesting removal of 401 KAR 50:055 section 1(1) and section 1(4) from the Kentucky SIP. EPA has determined that this SIP revision is consistent with the requirements for SIP provisions under the CAA. EPA has also determined that this SIP revision corrects the deficiencies identified in the 2015 SSM SIP Action with respect to the Kentucky SIP.

III. Incorporation by Reference

In this document, EPA is finalizing regulatory text that includes incorporation by reference. EPA is finalizing the removal of specific provisions of 401 KAR 50:055, *General Compliance Requirements,* as discussed in Sections I and II of this preamble. Specifically, EPA is removing 401 KAR 50:055 section 1(1) and section 1(4) from the Kentucky SIP, which are incorporated by reference in accordance with requirements of 1 CFR 51.5. EPA has made, and will continue to make, the SIP generally available at the EPA Region 4 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

IV. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 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. 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 Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- 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 CAA; 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).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it 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 CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by October 11, 2022. 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, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides.

Dated: August 3, 2022.

Daniel Blackman,

Regional Administrator, Region 4.

For the reasons stated in the preamble, the EPA amends 40 CFR part 52 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 S—Kentucky

■ 2. In § 52.920(c), amend Table 1 by revising the entry for ''401 KAR 50:055'' to read as follows:

§ 52.920 Identification of plan.

* * * * *

(c) * * *

TABLE 1—EPA-APPROVED KENTUCKY REGULATIONS

State citation	Title/subject	State effective date	EPA approval date	Explanation
*	*	*	*	*
401 KAR 50:055	General compliance requirements.	9/22/1982	05/04/89, 54 FR 19169	Except for Sections 1(1) and 1(4), which were removed from the SIP by EPA on 8/11/2022.
*	*	*	*	*

* * * * *

[FR Doc. 2022–17025 Filed 8–10–22; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R07–OAR–2022–0432; FRL–9851–02–R7]

Air Plan Partial Approval and Partial Disapproval; Missouri; Construction Permits Required

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking final action to partially approve and partially disapprove revisions to the Missouri State Implementation Plan (SIP) received on March 20, 2019 and June 10, 2021. The SIP revisions in the 2019 and 2021 submittals incorporate updates to construction permit requirement regulations for stationary and portable air sources in Missouri that help ensure ambient air quality standards are met. The changes include procedures for the Missouri Department of Natural Resources (MoDNR) to issue general permits, numerous organizational changes, administrative and typographical edits. The approved portions of the rule revision meet the requirements of the Clean Air Act. EPA is disapproving Section (1)(B) regarding voluntary permits. EPA is disapproving because the language of the provision is too vague and does not provide sufficient clarity for implementation.

DATES: The final rule is effective on September 12, 2022.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA–R07–OAR–2022–0432. All documents in the docket are listed on the *www.regulations.gov* website. 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 through *www.regulations.gov* or please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section for additional information.

FOR FURTHER INFORMATION CONTACT: Keith Johnson, Environmental Protection Agency, Region 7 Office, Air Permitting and Standards Branch, 11201 Renner Boulevard, Lenexa, Kansas 66219; telephone number: (913) 551–7737; email address: *johnson.keith@epa.gov.*

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

Table of Contents

I. What is being addressed in this document?
II. What is EPA's analysis of the rule revisions?
III. Have the requirements for approval of a SIP revision been met?
IV. What action is the EPA taking?
V. Incorporation by Reference
VI. Statutory and Executive Order Reviews

I. What is being addressed in this document?

The EPA is partially approving and partially disapproving submissions from Missouri that revises 10 CSR 10–6.060 Construction Permits Required. The revisions were received by EPA on March 20, 2019, and June 10, 2021. The EPA proposed to partially approve and partially disapprove these submission on June 2, 2022 (87 FR 33464). The EPA's analysis of the revisions can be found in Section II of this document, Section III of the proposed rule, and in more detail in the technical support document (TSD) included in this docket.

II. What is EPA's analysis of the rule revisions?

In the 2019 SIP submission, MoDNR stated that the revisions to this rule were extensive in order to clarify requirements and procedures for improving readability and regulatory certainty. These changes remove outdated references to incorporation by reference information and added appropriate incorporation by reference information to this rule. The changes clarify the definition of ''portable equipment installation'' and added procedures for issuing general permits in addition to other minor typographical corrections. For portable equipment installations, the potential to emit major source threshold of particulate matter was changed to match federal requirements.

Also in Missouri's 2019 submission, the State requested to add a provision for voluntary permits. The EPA is disapproving Section (1)(B) of 10 CSR 10–6.060 regarding voluntary permits. EPA finds that the language of the voluntary permit provision is too vague. For a SIP revision to be approved, EPA evaluates the rule revisions to ensure that any new provisions are permanent, quantifiable, and enforceable. EPA is disapproving because there is no information in the rule on the conditions, requirements, and parameters for applying for, issuing, or implementing voluntary permits. Based on the limited language in the rule, it is unclear how MoDNR intended to implement the provision. The rule text and EPA's full analysis of the requested revisions is included in the TSD.

Missouri's 2021 SIP submission amendments consisted primarily of administrative text edits and clarifications. A clarification to the definition of *Portable equipment* was added in Section 2 to explicitly state that ''any other air pollutant'' includes PM_{10} and $PM_{2.5}$. As discussed in the TSD, EPA finds that this rule revision would not interfere with maintenance of the $PM_{2.5}$ or PM_{10} NAAQS. The submission also clarified referenced materials and ensures consistency with the federal requirements.

Based on EPA's analysis of the requested revisions to 10 CSR 10–6.060

as summarized here and more fully described in the TSD, EPA is approving all requested revisions, other than section (1)(B) regarding voluntary permits, because they meet the requirements of the Clean Air Act (CAA), do not negatively impact the stringency of the SIP, or have an adverse impact to air quality.

III. Have the requirements for approval of a SIP revision been met?

With respect to the portions of the submittal which EPA is approving, the State submission met the public notice requirements for SIP submissions in accordance with 40 CFR 51.102. The submission also satisfied the completeness criteria of 40 CFR part 51, appendix V. The State provided public notice on this SIP revision from August 1, 2018 to October 4, 2018 and received 56 comments. 32 comments were made by EPA, 21 comments from State of Missouri Air Program Staff, and 4 from the public. The State of Missouri revised the rule and responded to comments prior to submitting to the EPA. In addition, as explained above (and in more detail in the technical support document which is included in the docket for this action), the revisions proposed for approval meet the substantive SIP requirements of the CAA, including section 110 and implementing regulations.

As explained in Section II and further in the TSD, EPA is disapproving Section (1)(B) of 10 CSR 10–6.060 regarding voluntary permits.

The EPA received no comments on the proposed rule during the public comment period which opened on June 2, 2022, the date of publication in the **Federal Register**, and closed on July 5, 2022.

IV. What action is the EPA taking?

The EPA is amending the Missouri SIP by partially approving and partially disapproving the State's request to revise 10 CSR 10–6.060 ''Construction Permits Required.'' Under section 179(a) of the CAA, final disapproval of a submittal that addresses a requirement of part D, title I of the CAA (CAA sections 171–193) or is required in response to a finding of substantial inadequacy as described in CAA section 110(k)(5) (SIP Call) starts a sanctions clock. The Missouri SIP submission that we are partially disapproving was not submitted to meet either of these requirements. Therefore, this partial disapproval will not trigger mandatory sanctions under CAA section 179. In addition, CAA section 110(c)(1) provides that EPA must promulgate a Federal Implementation Plan (FIP) within two years after either finding that a State has failed to make a required submission or disapproving a SIP submission in whole or in part, unless EPA approves a SIP revision correcting the deficiencies within that two-year period. With respect to our partial disapproval of Missouri's SIP submission, however, we conclude that any FIP obligation resulting from this partial disapproval is satisfied by our determination that there is no deficiency in the SIP to correct. Specifically, we are approving all revisions to the state rule except the voluntary permits provision discussed in this action therefore this action creates no deficiency in the SIP.

V. Incorporation by Reference

In this document, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of the Missouri rule 10 CSR 10–6.060 as described in Section I of this preamble and set forth below in the amendments to 40 CFR part 52. The EPA has made, and will continue to make, these materials generally available through *www.regulations.gov* and at the EPA Region 7 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

VI. Statutory and Executive Order Reviews

Under the CAA, 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, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. 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 Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- 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 the National Technology Transfer and Advancement Act (NTTA) because this rulemaking does not involve technical standards; 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, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).
- This action is subject to the Congressional Review Act, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. 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 October 11, 2022. 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, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate

matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: July 29, 2022.

Meghan A. McCollister,

Regional Administrator, Region 7.

For the reasons stated in the preamble, the EPA amends 40 CFR part 52 as set forth below:

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 AA—Missouri

■ 2. In § 52.1320, the table in paragraph (c) is amended by revising the entry ''10–6.060'' under the heading ''Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods, and Air Pollution Control Regulations for the State of Missouri'' to read as follows:

§ 52.1320 Identification of plan.

* * * * *

(c) * * *

EPA-APPROVED MISSOURI REGULATIONS

Missouri citation	Title	State effective date	EPA approval date	Explanation
Missouri Department of Natural Resources				
*	*	*	*	*
Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods, and Air Pollution Control Regulations for the State of Missouri				
*	*	*	*	*
10–6.060	Construction Permits Required.	5/30/2020	8/11/2022, [insert **Federal Register** citation].	Provisions of the 2010 $PM_{2.5}$ PSD-Increments, SILs and SMCs rule relating to SILs and SMCs that were affected by the January 22, 2013 U.S. Court of Appeals decision are not SIP approved. Provisions of the 2002 NSR reform rule relating to the Clean Unit Exemption, Pollution Control Projects, and exemption from recordkeeping provisions for certain sources using the actual-to-projected-actual emissions projections test are not SIP approved. ''Livestock and livestock handling systems from which the only potential contaminant is odorous gas.'' Section 9, pertaining to hazardous air pollutants, is not SIP approved. EPA previously approved the 3/30/2016 state effective date version of 10 CSR 10–6.060, with the above exceptions, in a **Federal Register** document published October 11, 2016. Section (1)(B) of 10 CSR 10–6.060 covering the voluntary permit provision is not SIP approved.
*	*	*	*	*

* * * * *

[FR Doc. 2022–16663 Filed 8–10–22; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 635

[Docket No. 220523–0119; RTID 0648–XC156]

Atlantic Highly Migratory Species; Atlantic Bluefin Tuna Fisheries; Closure of the General Category Fishery June Through August 2022 Subquota Time Period

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; closure.

SUMMARY: NMFS closes the General category fishery for large medium and giant (*i.e.,* measuring 73 inches (185 cm) curved fork length or greater) Atlantic bluefin tuna (BFT) for the remainder of the June through August subquota time period. This action applies to Atlantic Tunas General category (commercial) permitted vessels and HMS Charter/Headboat permitted vessels with a commercial sale endorsement when fishing commercially for BFT. This action also waives the previously-

scheduled restricted fishing days (RFDs) for the remainder of the June through August subquota time period. With the RFDs waived during the closure, fishermen aboard General category permitted vessels and HMS Charter/Headboat permitted vessels may tag and release BFT of all sizes, subject to the requirements of the catch-and-release and tag-and-release programs. The fishery will reopen automatically and previously scheduled RFDs for September will resume.

DATES: Effective 11:30 p.m., local time, August 10, 2022, through August 31, 2022.

FOR FURTHER INFORMATION CONTACT: Becky Curtis, *becky.curtis@noaa.gov,* 301–427–8503, Larry Redd, Jr., *larry.redd@noaa.gov,* 301–427–8503, or Nicholas Velseboer, *nicholas.velseboer@noaa.gov,* 978–281–9260.

SUPPLEMENTARY INFORMATION: Atlantic HMS fisheries, including BFT fisheries, are managed under the authority of the Atlantic Tunas Convention Act (ATCA; 16 U.S.C. 971 *et seq.*) and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; 16 U.S.C. 1801 *et seq.*). The 2006 Consolidated Atlantic HMS Fishery Management Plan (FMP) and its amendments are implemented by regulations at 50 CFR part 635. Section 635.27 divides the U.S. BFT quota recommended by the International Commission for the Conservation of Atlantic Tunas (ICCAT) and as implemented by the United States among the various domestic fishing categories, per the allocations established in the 2006 Consolidated HMS FMP and its amendments. NMFS is required under the Magnuson-Stevens Act to provide U.S. fishing vessels with a reasonable opportunity to harvest quotas under relevant international fishery agreements such as the ICCAT Convention, which is implemented domestically pursuant to ATCA.

Under § 635.28(a)(1), NMFS files a closure notice with the Office of the Federal Register for publication when a BFT quota (or subquota) is reached or is projected to be reached. Retaining, possessing, or landing BFT under that quota category is prohibited on and after the effective date and time of a closure notice for that category, for the remainder of the fishing year, until the opening of the subsequent quota period, or until such date as specified.

The baseline U.S. BFT quota is 1,316.14 mt (§ 635.27(a)). The current baseline quota for the General category is 587.9 mt and the baseline subquota for the June through August time period is 293.9 mt (§ 635.27(a)(1)).

Closure of the June Through August 2022 General Category Fishery

As of August 8, 2022, reported landings for the General category June through August subquota time period total approximately 265 mt. Based on these landings data, as well as average catch rates and anticipated fishing conditions, NMFS has determined that the June through August 2022 subquota of 293.9 mt will be reached shortly. Therefore, retaining, possessing, or landing large medium or giant (*i.e.,* measuring 73 inches (185 cm) curved fork length or greater) BFT by persons aboard vessels permitted in the Atlantic Tunas General category and HMS Charter/Headboat permitted vessels (while fishing commercially) must cease at 11:30 p.m. local time on August 10, 2022. The General category will automatically reopen September 1, 2022, for the September 2022 subquota time period. This action applies to Atlantic Tunas General category (commercial) permitted vessels and HMS Charter/Headboat permitted vessels with a commercial sale endorsement when fishing commercially for BFT and is taken consistent with the regulations at § 635.28(a)(1). The intent of this closure is to prevent overharvest of the available June through August subquota. The fishery will reopen automatically on September 1, 2022.

Adjustment of Daily Retention Limit for Selected Dates

On June 1, 2022 (87 FR 33056), NMFS published a final rule implementing RFDs every Tuesday, Friday, and Saturday through November 30, 2022. Since the fishery will be closed for the remainder of the June through August subquota time period, NMFS has decided to waive the previously scheduled RFDs for the remainder of that period. Previously scheduled RFDs will resume on September 2, 2022.

With the RFDs waived during the closure, consistent with § 635.23(a)(4), fishermen aboard General category permitted vessels and HMS Charter/Headboat permitted vessels may tag and release BFT of all sizes, subject to the requirements of the catch-and-release and tag-and-release programs at § 635.26. All BFT that are released must be handled in a manner that will maximize their survival, and without removing the fish from the water, consistent with requirements at § 635.21(a)(1). For additional information on safe handling, see the ''Careful Catch and Release'' brochure available at *https://www.fisheries.noaa.gov/resource/outreach-and-education/careful-catch-and-release-brochure/.*

Monitoring and Reporting

NMFS will continue to monitor the BFT fisheries closely. Dealers are required to submit landing reports within 24 hours of a dealer receiving BFT. Late reporting by dealers compromises NMFS' ability to timely implement actions such as quota and retention limit adjustments, as well as closures, and may result in enforcement actions. Additionally, and separate from the dealer reporting requirement, General category and HMS Charter/Headboat permitted vessel owners are required to report the catch of all BFT retained or discarded dead within 24 hours of the landing(s) or end of each trip, by accessing *hmspermits.noaa.gov,* using the HMS Catch Reporting app, or calling (888) 872–8862 (Monday through Friday from 8 a.m. until 4:30 p.m.).

After the fishery reopens on September 1, depending on the level of fishing effort and catch rates of BFT, NMFS may determine that additional adjustments are necessary to ensure available subquotas are not exceeded or to enhance scientific data collection from, and fishing opportunities in, all geographic areas. If needed, subsequent adjustments will be published in the **Federal Register**. In addition, fishermen may call the Atlantic Tunas Information Line at (978) 281–9260, or access *hmspermits.noaa.gov,* for updates on quota monitoring and inseason adjustments.

Classification

NMFS issues this action pursuant to section 305(d) of the Magnuson-Stevens Act and regulations at 50 CFR part 635 and is exempt from review under Executive Order 12866.

The Assistant Administrator for NMFS finds that it is impracticable and contrary to the public interest to provide prior notice of, and an opportunity for public comment on, this action for the following reasons:

The regulations implementing the 2006 Consolidated HMS FMP and its amendments provide for inseason adjustments and fishery closures to respond to the unpredictable nature of BFT availability on the fishing grounds, the migratory nature of this species, and the regional variations in the BFT fishery. This fishery is currently underway and delaying this action would be contrary to the public interest as it could result in BFT landings exceeding the General category June through August 2022 subquota, which could result in the need to reduce quota

for the General category later in the year and thus could affect later fishing opportunities. Therefore, the AA finds good cause under 5 U.S.C. 553(b)(B) to waive prior notice and the opportunity for public comment. For all of the above reasons, there is good cause under 5 U.S.C. 553(d) to waive the 30-day delay in effectiveness.

Authority: 16 U.S.C. 971 *et seq.* and 1801 *et seq.*

Dated: August 8, 2022.

Kelly Denit,

Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2022–17281 Filed 8–8–22; 4:15 pm]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[Docket No. 220510–0113; RTID 0648–XC188]

Fisheries Off West Coast States; Modification of the West Coast Salmon Fisheries; Inseason Actions #16 Through #25

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Inseason modification of 2022 management measures.

SUMMARY: NMFS announces ten inseason actions in the 2022 ocean salmon fisheries. These inseason actions modify the commercial and recreational ocean salmon fisheries in the area from the U.S./Canada border to the U.S./Mexico border.

DATES: The effective dates for the inseason actions are set out in this document under the heading ''Inseason Actions'' and the actions remain in effect until superseded or modified.

FOR FURTHER INFORMATION CONTACT: Shannon Penna at 562–980–4239, Email: *Shannon.Penna@noaa.gov.*

SUPPLEMENTARY INFORMATION:

Background

The 2022 annual management measures for ocean salmon fisheries (87 FR 29690, May 16, 2022), announced management measures for the commercial and recreational fisheries in the area from the U.S./Canada border to the U.S./Mexico border, effective from 0001 hours Pacific Daylight Time (PDT), May 16, 2022, until the effective date of the 2023 management measures, as published in the **Federal Register**. NMFS is authorized to implement inseason management actions to modify fishing seasons and quotas as necessary to provide fishing opportunity while meeting management objectives for the affected species (50 CFR 660.409). Inseason actions in the salmon fishery may be taken directly by NMFS (50 CFR 660.409(a)—Fixed inseason management provisions) or upon consultation with the Chairman of the Pacific Fishery Management Council (Council), and the appropriate State Directors (50 CFR 660.409(b)—Flexible inseason management provisions).

Management of the salmon fisheries is divided into two geographic areas: north of Cape Falcon (NOF) (U.S./Canada border to Cape Falcon, OR), and south of Cape Falcon (SOF) (Cape Falcon, OR, to the U.S./Mexico border). The actions described in this document affect the NOF commercial and recreational salmon fisheries, as set out under the heading Inseason Action below.

Consultations with the Council Chairperson on these inseason actions occurred on June 22, 2022, June 28, 2022, June 30, 2022, and July 8, 2022. Representatives from NMFS, Washington Department of Fish and Wildlife (WDFW), Oregon Department of Fish and Wildlife (ODFW), California Department of Fish and Wildlife (CDFW) and Council staff participated in these consultations. Members of the Salmon Advisory Subpanel and Salmon Technical Team were also present on the calls.

These inseason actions were announced on NMFS's telephone hotline and U.S. Coast Guard radio broadcast on the date of the consultations (50 CFR 660.411(a)(2)).

Inseason Actions

Inseason Action #16

Description of the action: Inseason action #16 modifies the recreational salmon fishery from the U.S./Canada border to Cape Alava, WA (Neah Bay subarea), from a two salmon per day bag limit to two salmon per day, only one of which may be a Chinook salmon, beginning at 12:01 a.m. on June 24, 2022.

Effective date: Inseason action #16 took effect on June 24, 2022, and remains in effect until superseded.

Reason and authorization for the action: More than 12 percent of the Chinook salmon guideline was caught on the first two days of the recreational salmon fishery season (June 18–June 19, 2022). Inseason action #16 was necessary to reduce Chinook salmon catch to preserve the length of the season while avoiding exceedance of the Chinook salmon guideline and maximizing catch of the available coho salmon quota.

The NMFS West Coast Regional Administrator (RA) considered the landings of Chinook salmon and fishery effort in the NOF recreational salmon fishery occurring to date as well as anticipated under the proposal, quotas and guidelines set preseason, and the recreational Chinook salmon guideline remaining. The RA determined that this inseason was necessary to preserve the available recreational Chinook salmon guideline in the Neah Bay subarea in order to meet management goals set preseason, including the Pacific Coast Salmon Fishery Management Plan's (FMP) goal. The modification of recreational bag limits is authorized by 50 CFR 660.409(b)(1)(iii).

Inseason Action #17

Description of the action: Inseason action #17 modifies the commercial salmon troll fishery north of Cape Falcon previously closed from June 15–June 30, 2022. This fishery is now scheduled to re-open on June 23, 2022, at 12:01 a.m. through 11:59 p.m. June 29, 2022, with a landing and possession limit of 13 Chinook salmon per vessel.

Effective date: Inseason action #17 took effect on June 23, 2022, and remains in effect until June 29, 2022.

Reason and authorization for the action: The total Chinook salmon landings in the area from the U.S./Canada border to Cape Falcon, OR, are estimated to be 17,468 Chinook salmon out of the May-June 2022 quota of 18,000 Chinook salmon leaving a remainder of 532 Chinook salmon quota. Inseason action was necessary to allow opportunity to catch the remainder of the Chinook salmon quota, while limiting catch to ensure that the quota is not exceeded.

The RA considered the landings of Chinook salmon and fishery effort in the NOF commercial salmon fishery occurring to date as well as anticipated under the proposal, the amount of quota remaining, and the timing of the action relative to the length of the season, and determined that this inseason action was necessary to avoid exceeding the subarea quotas set preseason and provide greater fishing opportunities. Inseason actions to modify quotas and fishing seasons is authorized under 50 CFR 660.409(b)(1)(i) and (iii).

Inseason Action #18

Description of the action: Retention of halibut caught incidental to the commercial salmon troll fishery (U.S./Canada border to the U.S./Mexico

border) is extended past June 30, 2022, and remains in effect until superseded.

Effective date: Inseason action #18 took effect on July 1, 2022, and remains in effect until superseded.

Reason and authorization for the action: The 2022 salmon management measures (87 FR 29690, May 16, 2022) authorize the retention of Pacific halibut caught incidental to the commercial salmon troll fishery in 2022 during April, May, and June, and after June 30, 2022, if quota remains and is announced on the NMFS telephone hotline for salmon fisheries. The 2022 incidental Pacific halibut quota for the commercial salmon troll fishery is 44,599 pounds (head off), leaving 76.1 percent of the quota unharvested as of June 28, 2022.

The RA considered the landed catch of Pacific halibut to date and the amount of quota remaining, and determined that this inseason action was necessary to meet management goals set preseason for catch sharing of halibut. Inseason modification of the species that may be caught and landed during specific seasons is authorized by 50 CFR 660.409(b)(1)(ii).

Inseason Action #19

Description of the action: Inseason action #19 modifies the Chinook salmon landing and possession limit for the commercial salmon troll fishery across the entire north of Cape Falcon area, regardless of subarea, to: 50 Chinook salmon per vessel starting 12:01 a.m. July 1 through 11:59 p.m. July 6, 2022; and 40 Chinook salmon per vessel per landing week (Thursday through Wednesday) starting 12:01 a.m. July 7, 2022.

Effective date: Inseason action #19 took effect on July 1, 2022, and remains in effect until superseded.

Reason and authorization for the action: This action was taken to extend the season length and allow access to the Chinook and coho salmon quota. The RA considered the landings of Chinook and coho salmon to date, fishery catch and effort to date, the amount of quota remaining, and the timing of the action relative to the length of the season, and determined that this inseason action was necessary to avoid exceeding the subarea quotas set preseason and provide greater fishing opportunities to access the available quotas. Inseason actions to modify limited retention regulations is authorized under 50 CFR 660.409(b)(1)(ii).

Inseason Action #20

Description of the action: Inseason action #20 modifies the north of Cape Falcon recreational salmon fishery from Cape Alava, WA to the Queets River (La Push subarea), from a two salmon per day bag limit to two salmon per day, only one of which may be a Chinook salmon, beginning at 12:01 a.m. on Monday, July 4, 2022.

Effective date: Inseason action #20 took effect on July 4, 2022, and remains in effect until September 30, 2022.

Reason and authorization for the action: The cumulative salmon landings for the week of June 20 through June 26, 2022, in the area from Cape Alava, WA to the Queets River (La Push subarea), were 15 Chinook salmon of a 1,120 Chinook salmon guideline and 44 coho salmon of a 4,270 quota. The modification of bag limits was necessary to slow the Chinook salmon catch rates, push effort towards the ocean where catch rates of Chinook were lower, in order to maintain the season length in the La Push subarea.

The RA considered the landings of Chinook and coho salmon to date, fishery catch and effort to date, the amount of quota remaining, and the timing of the action relative to the length of the season, and determined that this inseason action was necessary to avoid exceeding the subarea quotas and guidelines set preseason and provide greater fishing opportunities. The modification of recreational bag limits is authorized under 50 CFR 660.409(b)(1)(iii).

Inseason Action #21

Description of the action: Inseason action #21 modifies the north of Cape Falcon recreational salmon fishery from the U.S/Canada border to Cape Alava, WA (Neah Bay subarea) east of the Bonilla-Tatoosh line; beginning at 12:01 a.m. on Saturday, July 2, 2022, the fishery is closed.

Effective date: Inseason action #21 took effect on July 2, 2022, and remains in effect until superseded.

Reason and authorization for the action: Suspending salmon fishing will preserve the Chinook salmon quota and may allow reopening the area later in the season when more coho salmon are expected to be present. The RA considered the landings of Chinook and coho salmon to date, fishery catch and effort to date, projected catch and effort against the amount of quota remaining, and the timing of the action relative to the length of the season, and determined that this inseason action was necessary to avoid exceeding the subarea quotas and guidelines set preseason and to sustain fishing opportunities in the area. The modification of recreational season is authorized under 50 CFR 660.409(b)(1)(i).

Inseason Action #22

Description of the action: Inseason action #22 modifies the north of Cape Falcon recreational salmon fishery from the U.S./Canada border to Cape Alava, WA (Neah Bay subarea); beginning at 12:01 a.m. on Tuesday, July 5, 2022, the fishery is closed.

Effective date: Inseason action #22 took effect on July 2, 2022, and remains in effect until superseded.

Reason and authorization for the action: Suspending salmon fishing will preserve Chinook salmon quota and allow reopening the area later in the season when more coho salmon are expected to be present. The RA considered the landings of Chinook and coho salmon to date, fishery catch and effort to date, the amount of quota remaining, and the timing of the action relative to the length of the season, and determined that this inseason action was necessary to avoid exceeding the subarea quotas and guidelines set preseason and provide fishing opportunities later in the season. The modification of recreational season is authorized under 50 CFR 660.409(b)(1)(i).

Inseason Action #23

Description of the action: Inseason #23 modifies the commercial salmon troll fishery from Humbug Mountain, OR, to the Oregon/California border (Oregon Klamath Management Zone (KMZ)). The July 2022 quota increased from 400 Chinook salmon to 687 Chinook salmon through an impact-neutral rollover of unused quota from the June 2022 commercial salmon troll fishery in the same area.

Effective date: Inseason action #23 took effect on July 8, 2022, and remains in effect until superseded.

Reason and authorization for the action: Authority for this impact-neutral rollover of uncaught quota is specified in the 2022 ocean salmon regulations (87 FR 29690, May 16, 2022). The June commercial salmon fishery had a quota of 800 Chinook salmon. Of that quota, 390 Chinook salmon were landed, leaving 410 Chinook salmon quota available to rollover to the July fishery. The Council's Salmon Technical Team calculated that the impact-neutral rollover of the remaining quota would add 287 Chinook salmon to the July quota for an adjusted quota of 687 Chinook salmon.

The RA considered the landings of Chinook salmon in the SOF commercial salmon fishery, fishery effort occurring to date, quotas set preseason, and the STT's calculations for the impact-neutral quota rollover. The RA

determined that this inseason action was necessary to provide access to available Chinook salmon quota and meet management goals set preseason. The modification of quotas is authorized by 50 CFR 660.409(b)(1)(i).

Inseason Action #24

Description of the action: Inseason #24 modifies the north of Cape Falcon recreational salmon fishery from the U.S./Canada border to Cape Alava, WA, (Neah Bay subarea) west of the Bonilla-Tatoosh line; the fishery is now scheduled to reopen starting at 12:01 a.m. on Monday, July 25, 2022, through 11:59 p.m. September 30, 2022. The season will open with a daily bag limit of 2 salmon, no more than 1 of which may be a Chinook salmon. Beginning August 1, 2022, all retained coho salmon must be marked with a healed adipose fin clip, and retention of chum salmon is prohibited. All other provisions remain as described in the pre-season regulations for this portion of the subarea.

Effective date: Inseason action #24 took effect on July 25, 2022, and remains in effect until September 30, 2022.

Reason and authorization for the action: The catch quotas for recreational fisheries north of Cape falcon are 27,000 Chinook salmon and 168,000 marked coho salmon, with a Chinook salmon guideline of 6,110 and coho salmon quota of 17,470 in the Neah Bay subarea. Sufficient quota remains to reopen the area from the U.S./Canada border to Cape Alava, WA, (Neah Bay subarea) west of the Bonilla-Tatoosh line (Neah Bay subarea) to fishing.

The RA considered the landings of Chinook salmon to date, fishery catch and effort to date, the amount of quota remaining, and the timing of the action relative to the length of the season, and determined that this inseason action was necessary to avoid exceeding the subarea quotas set preseason and provide greater fishing opportunities later in the season when Chinook catch rates were anticipated to stabilize. Inseason actions to modify bag limits and fishing seasons is authorized under 50 CFR 660.409(b)(1)(i) and (iii).

Inseason Action #25

Description of the action: Inseason #25 modifies the north of Cape Falcon recreational salmon fishery from the U.S./Canada border the Cape Alava, WA (Neah Bay subarea) east of the Bonilla-Tatoosh line; the fishery is scheduled to reopen starting at 12:01 a.m. on Monday, August 1, 2022, through 11:59 p.m. September 30, 2022. The season will open with a daily bag limit of 2 salmon. All retained coho salmon must be marked with a healed adipose fin clip. Retention of Chinook salmon and chum salmon is prohibited. All other provisions remain as described in pre-season regulations for this portion of the subarea.

Effective date: Inseason action #25 takes effect on August 1, 2022, and remains in effect until September 30, 2022.

Reason and authorization for the action: The catch quotas for recreational fisheries north of Cape falcon are 27,000 Chinook salmon and 168,000 marked coho salmon, with a subarea Chinook salmon guideline of 6,110 and coho salmon quota of 17,470. Sufficient quota is anticipated to remain to reopen the area from the U.S./Canada border to Cape Alava, WA, (Neah Bay subarea) east of the Bonilla-Tatoosh line (Neah Bay subarea) to fishing.

The RA considered the landings of Chinook salmon to date, fishery catch and effort to date, the amount of quota remaining, and the timing of the action relative to the length of the season, and determined that this inseason action was necessary to avoid exceeding the subarea quotas set preseason and provide greater fishing opportunities. Inseason actions to modify bag limits and fishing seasons is authorized under 50 CFR 660.409(b)(1)(i) and (ii).

All other restrictions and regulations remain in effect as announced for the 2022 ocean salmon fisheries (87 FR 29690, May 16, 2022), as modified by previous inseason action (87 FR 41260, July 12, 2022).

The RA determined that these inseason actions were warranted based on the best available information on Pacific salmon abundance forecasts, landings to date, anticipated fishery effort and projected catch, and the other factors and considerations set forth in 50 CFR 660.409. The states manage the fisheries in state waters adjacent to the areas of the U.S. exclusive economic zone (3–200 nautical miles (5.6–370.4 kilometers) off the coasts of the states of Washington, Oregon, and California) consistent with these Federal actions. As provided by the inseason notice procedures at 50 CFR 660.411, actual notice of the described regulatory action was given, prior to the time the action was effective, by telephone hotline numbers 206–526–6667 and 800–662–9825, and by U.S. Coast Guard Notice to Mariners broadcasts on Channel 16 VHF–FM and 2182 kHz.

Classification

NMFS issues these actions pursuant to section 305(d) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). These actions are authorized by 50 CFR 660.409, which was issued pursuant to section 304(b) of the MSA, and are exempt from review under Executive Order 12866.

Pursuant to 5 U.S.C. 553(b)(3)(B), there is good cause to waive prior notice and an opportunity for public comment on this action, as notice and comment would be impracticable and contrary to the public interest. Prior notice and opportunity for public comment on this action was impracticable because NMFS had insufficient time to provide for prior notice and the opportunity for public comment between the time Chinook salmon abundance, catch, and effort information were developed and fisheries impacts were calculated, and the time the fishery modifications had to be implemented in order to ensure that fisheries are managed based on the best scientific information available and that fishery participants can take advantage of the additional fishing opportunity these changes provide. As previously noted, actual notice of the regulatory actions was provided to fishers through telephone hotline and radio notification. These actions comply with the requirements of the annual management measures for ocean salmon fisheries (87 FR 29690, May 16, 2022), the Fishery Management Plan (FMP), and regulations implementing the FMP under 50 CFR 660.409 and 660.411.

There is good cause under 5 U.S.C. 553(d)(3) to waive the 30-day delay in effective date, as a delay in effectiveness of this action would restrict fishing at levels inconsistent with the goals of the FMP and the current management measures.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 3, 2022.

Jennifer M. Wallace,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2022–17043 Filed 8–10–22; 8:45 am]

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Proposed Rules

Federal Register

Vol. 87, No. 154

Thursday, August 11, 2022

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 ENERGY

10 CFR Part 431

[EERE–2021–BT–STD–0018]

RIN 1904–AE54

Energy Conservation Program: Energy Conservation Standards for Commercial and Industrial Pumps

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notification of data availability (''NODA'').

SUMMARY: On August 9, 2021, the U.S. Department of Energy (''DOE'') published a request for information regarding energy conservation standards for commercial and industrial pumps (''pumps''). In this notice of data availability (''NODA''), DOE is publishing an overview of potential technology/design options and associated estimated national energy savings with preliminary industry net present value estimates for certain pump equipment classes in order to provide stakeholders with additional information and to assist DOE in determining how to proceed with the rulemaking. The analysis presented in this NODA is consistent with the scope that DOE proposed in a test procedure notice of proposed rulemaking for commercial and industrial pumps published on April 11, 2022. DOE requests comments, data, and information regarding its analysis.

DATES: Written comments and information will be accepted on or before, September 26, 2022.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov,* under docket number EERE–2021–BT–STD–0018. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE–2021–BT–STE–0018, by any of the following methods:

(1) *Email: Pumps2021STD0018@ee.doe.gov.* Include the docket number EERE–2021–BT–STD–0018 in the subject line of the message.

(2) *Postal Mail:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 287–1445. If possible, please submit all items on a compact disc (''CD''), in which case it is not necessary to include printed copies.

(3) *Hand Delivery/Courier:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 950 L'Enfant Plaza SW, 6th Floor, Washington, DC 20024. Telephone: (202) 287–1445. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

No telefacsimiles (''faxes'') will be accepted. For detailed instructions on submitting comments and additional information on this process, see section IV of this document.

To inform interested parties and to facilitate this rulemaking process, DOE has prepared a technical support document (''TSD'') which is available in the docket for this rulemaking.

Docket: The docket for this activity, which includes **Federal Register** notices, comments, public meeting transcripts, and other supporting documents/materials, is available for review at *www.regulations.gov.* All documents in the docket are listed in the *www.regulations.gov* index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket web page can be found at *www.regulations.gov/docket/EERE-2021-BT-STD-0018.* The docket web page contains instructions on how to access all documents, including public comments in the docket. See section IV.A of this document for information on how to submit comments through *www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT:

Mr. Jeremy Dommu, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies, EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 586–9870. Email: *ApplianceStandardsQuestions@ee.doe.gov.*

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, GC–33, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 586–8145. Email: *Michael.Kido@hq.doe.gov.*

For further information on how to submit a comment, review other public comments and the docket, or participate in the public meeting, contact the Appliance and Equipment Standards Program staff at (202) 287–1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov.*

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction
A. Authority
B. Deviation From Appendix A
II. Background
A. Current Standards
B. Current Process
III. Discussion
A. Scope
B. Technology Options
1. Hydraulic Redesign
2. Advanced Motors
3. Variable-Speed Drives
a. Potential Disruption to Pumps Market
b. Potential Issues With the Replacement Market
c. Potential Energy Use Impacts
d. Potential Cost Impacts
C. Analysis
1. Screening
a. Methodology
b. Hydraulic Redesign Approach
c. Motors and Controls Approach
2. National Energy Savings
a. Energy Use Analysis
b. Shipments Analysis
c. National Energy Savings
3. Manufacturer Impact Analysis
a. Small Business Impacts
IV. Public Participation
A. Submission of Comments
B. Issues on Which DOE Seeks Comment
V. Approval of the Office of the Secretary

I. Introduction

A. Authority

The Energy Policy and Conservation Act, as amended (''EPCA''),[1] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C.

[1] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116–260 (Dec. 27, 2020), which reflect the last statutory amendments that impact parts A and A–1 of EPCA.

6291–6317) Title III, Part C[2] of EPCA, added by Public Law 95–619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency. This covered equipment includes pumps, the subject of this document. (42 U.S.C. 6311(1)(A))

EPCA provides that, not later than 6 years after the issuance of any final rule establishing or amending a standard, DOE must publish either a notification of determination that standards for the product do not need to be amended, or a notice of proposed rulemaking (''NOPR'') including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)) Not later than three years after issuance of a final determination not to amend standards, DOE must publish either a notice of determination that standards for the product do not need to be amended, or a NOPR including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(3)(B))

Under EPCA, any new or amended energy conservation standard must be designed to achieve the maximum improvement in energy efficiency that DOE determines is technologically feasible and economically justified. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(2)(A)) Furthermore, the new or amended standard must result in a significant conservation of energy. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(3)(B))

DOE is publishing this NODA to collect data and information to inform its decision consistent with its obligations under EPCA.

B. Deviation From Appendix A

In accordance with section 3(a) of 10 CFR part 430, subpart C, appendix A (''appendix A''), which applies to commercial and industrial pumps under 10 CFR 431.4, DOE notes that it is deviating from the provision in appendix A regarding the length of comment periods for the pre-NOPR stages for an energy conservation standards rulemaking. Section 6(d)(2) of appendix A specifies that the length of the public comment period for pre-NOPR rulemaking documents will not be less than 75 calendar days. For this NODA, DOE has opted instead to provide a 45-day comment period. DOE requested comment in an early assessment request for information published on August 9, 2021 (''August 2021 RFI'') on the analysis conducted in support of the previous energy conservation standard rulemaking for pumps. 86 FR 43430, 43431. The August 2021 RFI provided 30 days for submitting written comment, data, and information. In response to comment received from stakeholders, DOE extended the comment period for the August 2021 RFI another 30 days. Given that the analysis will largely remain the same, and in light of the 60-day comment associated with the August 2021 RFI, DOE has determined that a 45-day comment period is sufficient to enable interested parties to review the data and accompanying analysis and develop meaningful comments in response to the NODA.

[2] For editorial reasons, upon codification in the U.S. Code, part C was redesignated part A–1.

II. Background

A. Current Standards

In a final rule published on January 26, 2016 (''January 2016 Final Rule''), DOE prescribed the current energy conservation standards for pumps manufactured on and after January 27, 2020. 81 FR 4368. These standards are set forth in DOE's regulations at 10 CFR 431.465 and are reproduced in Table II.1. DOE set standards for equipment classes which were divided based on pump category, nominal speed of rotation (rpm), and load type (constant and variable). Equipment class labels are structured as pump category acronym, rpm, constant-load (''CL'') or variable-load (''VL''). CL and VL equipment classes were not analyzed separately in the January 2016 Final Rule and therefore were not assigned different standards.

TABLE II.1—FEDERAL ENERGY CONSERVATION STANDARDS FOR PUMPS

Equipment class	Maximum PEI	C-value
ESCC.1800.CL	1	128.47
ESCC.3600.CL	1	130.42
ESCC.1800.VL	1	128.47
ESCC.3600.VL	1	130.42
ESFM.1800.CL	1	128.85
ESFM.3600.CL	1	130.99
ESFM.1800.VL	1	128.85
ESFM.3600.VL	1	130.99
IL.1800.CL	1	129.3
IL.3600.CL	1	133.84
IL.1800.VL	1	129.3
IL.3600.VL	1	133.84
RSV.1800.CL	1	129.63
RSV.3600.CL	1	133.2
RSV.1800.VL	1	129.63
RSV.3600.VL	1	133.2
ST.1800.CL	1	138.78
ST.3600.CL	1	134.85
ST.1800.VL	1	138.78
ST.3600.VL	1	134.85

B. Current Process

In the August 2021 RFI, DOE sought data and information to evaluate whether amended energy conservation standards for pumps would result in a significant savings of energy; be technologically feasible; and be economically justified. 86 FR 43430. Comments received to date as part of the current process have helped DOE identify and resolve issues related to the preliminary analyses. Chapter 1 of the TSD accompanying this NODA summarizes and addresses the comments received.

III. Discussion

The goal of this NODA is to provide an overview of potential design options and associated national energy savings (''NES'') and preliminary industry net present value (''INPV'') estimates for the various commercial and industrial pump equipment classes, as well as associated qualitative information. Following comments received on this NODA, DOE would determine how to proceed with the rulemaking.

The contents of this NODA are based on the scope proposed in a test procedure notice of proposed rulemaking for pumps published on April 11, 2022 (''April 2022 TP NOPR''). 87 FR 21268, 21273. DOE acknowledges that stakeholder comments in response to the April 2022 TP NOPR include scope-related comments, which DOE will consider in determining the scope of any final test procedure and any subsequent energy conservation standards analyses.

This NODA includes an abbreviated set of analyses as compared to a full preliminary analysis or notice of proposed rulemaking: market and technology assessment; screening analysis; engineering analysis; energy use analysis and shipments analysis to calculate national energy savings; and a preliminary manufacturer impact analysis.

This NODA does not include a life cycle cost analysis (''LCC'') or the national net present value portion of the national impact analysis (''NIA''). In the January 2016 Final Rule, all LCC results based on hydraulic redesign were positive since there was no increase in manufacturer production cost (''MPC''), and the energy cost savings significantly outweighed the increase in manufacturer selling price (''MSP'') that DOE calculated by assuming manufacturers recouped conversion costs. 81 FR 4368, 4406–4409. At this time, DOE does not have data that would indicate the results would be different from those presented in the January 2016 Final Rule, and as discussed in section III.B.1 of this document, manufacturers were unable to recoup any conversion costs resulting

from the current standard. However, if updated data were provided, DOE could evaluate MPC increases for additional hydraulic redesign and these values could be incorporated into a future LCC or NIA analysis, along with MPC increases for other technology options as discussed in section III.C.2.c. of this document.

The analyses in this NODA are primarily based on data from the previous rulemaking, except for updated efficiency distributions, conversion costs, estimated motors and controls performances and costs, and performance data for pumps not currently subject to standards. In addition, due to limited data, the analysis for pumps not currently subject to standards is based largely on proxies from the current scope. Overviews of the analyses can be found in section III.C of this document, with detailed methodology available in the TSD accompanying this NODA.

A. Scope

In this NODA, DOE conducted analyses for pump categories currently subject to DOE standards, in addition to some pump categories that are not currently subject to standards, but were included in the April 2022 TP NOPR. 87 FR 21268. Pump categories currently subject to standards include end suction frame mounted (''ESFM'') pumps, end suction close-coupled (''ESCC'') pumps, in-line (''IL'') pumps, radially split, multi-stage, vertical, in-line diffuser casing (''RSV'') pumps, and submersible turbine (''ST'') pumps. Pump categories not currently subject to standards that were included in the April 2022 TP NOPR include between bearing (''BB'') pumps, vertical turbine (''VT'') pumps, small vertical in-line (''SVIL'') pumps, radially split horizontal (''RSH'') pumps, pumps with a nominal speed of rotation of 1,200 rpm, and ST pumps with bowl diameters greater than 6 inches. During the pumps negotiations in 2014,[3] DOE collected data on BB, VT, and SVIL pumps. DOE combined these data with data from a recent round of manufacturer interviews for this NODA analysis. DOE did not have sufficient data to evaluate RSH pumps and ST pumps with bowl diameters greater than 6 inches in this NODA. In addition, as there are so few models of ST.1800 pumps, DOE only evaluated ST.3600 pumps as part of this NODA, consistent with the January 2016 Final Rule.

Table III.1 compares shipments and average horsepower (''HP'') for pumps not currently, and currently, subject to standards based on available data. Based on stakeholder feedback through public comments and manufacturer interviews, DOE has tentatively determined that the pumps not currently subject to standards are, on average, rated at a higher HP than the pumps currently subject to DOE standards—and as a result, total shipments for these pumps within the scope limitations of 200 HP and 459 feet of head tend to be smaller than for the pump categories that DOE currently regulates. As noted, DOE will address stakeholder comments received on the April 2022 TP NOPR related to those pumps that are not currently subject to standards, including the application of the current scope limitations, in subsequent test procedure rulemaking documents.

TABLE III.1—SHIPMENTS AND AVERAGE HP BY EQUIPMENT CLASS FOR PUMPS NOT CURRENTLY, AND NOT CURRENTLY, SUBJECT TO STANDARDS AND PUMPS NOT CURRENTLY SUBJECT TO STANDARDS

Equipment category	2021 Shipments estimates (units)	Average HP
Currently subject to standards:		
ESCC	[a] 206,215	[a] 9
ESFM	[a] 52,894	[a] 20
IL	[a] 60,566	[a] 10
ST	[a] 128,893	[a] 7
RSV	[a] 60,019	[b] 14
Not currently subject to standards		
BB	[a] 6,379	[c] 21
VT	[a] 7,179	[c] 7
SVIL	[c] 10,212	[c] 0.5
RSH	N/A	N/A
1200 rpm (ESCC, ESFM, and IL categories)	[c] 7,874	[c] 13
ST and VT > 6inch	N/A	N/A
Total	540,231	10

[a] Year 2012 shipments based on an HI survey (*www.regulations.gov/document/EERE-2013-BT-NOC-0039-0068*), projected forward to year 2021 based on the shipments methodology (discussed in section III.C.3.b of this document).
[b] DOE's Compliance Certification Database, *see www.regulations.doe.gov/certification-data/CCMS-4-Pumps_-_General_Pumps.html#q=Product_Group_s%3A%22Pumps%20-%20General%20Pumps%22* accessed on March 20, 2022.
[c] Based on both manufacturer data collection conducted for this analysis and for the January 2016 Final Rule while applying equipment class similarity (discussed in section III.C.3.a of this document) and the shipments methodology (discussed in section III.C.3.b of this document).

Issue 1: DOE seeks individual model level data or industry aggregated data to update its shipment and average horsepower estimate for pump categories that are currently subject to standards and those pump categories that are currently not subject to standards.

As discussed previously, DOE intends to use this NODA as a step toward determining how to proceed with a rulemaking for pumps. DOE

[3] A commercial and industrial pumps working group (''CIP working group'') was established in 2013 under the Appliance Standards and Rulemaking Advisory Committee (''ASRAC'') in accordance with the Federal Advisory Committee Act and the Negotiated Rulemaking Act. (5 U.S.C. App.; 5 U.S.C. 561–570). *See* 78 FR 44036. The purpose of the CIP working group was to discuss and, if possible, reach consensus on proposed standards for pump energy efficiency. On June 19, 2014, the CIP working group reached consensus on proposed energy conservation standards for specific rotodynamic, clean water pumps used in a variety of commercial, industrial, agricultural, and municipal applications. The CIP working group assembled their recommendations into a Term Sheet (*See* Docket EERE–2013–BT–NOC–0039–0092, *www.regulations.gov/document/EERE-2013-BT-NOC-0039-0092*).

acknowledges that if pump classes that are not currently within scope of the test procedure were included in the scope of the test procedure final rule, but were not included in the scope of the energy conservation standard, these classes would not have assigned C-values.[4] In this case, the pump energy rating (''PER'') for a minimally compliant pump (''PER_{STD}'') could not be calculated, making it impossible to determine a pump energy index (''PEI'') rating for these classes. To address this issue, DOE could consider issuing a supplemental NOPR for the test procedure to establish C-values for the categories currently subject to standards at a baseline level that would enable calculation of PEI for these categories and facilitate rebate or other efficiency programs for pumps not currently subject to standards.

Issue 2: DOE requests comments on potential benefits or drawbacks of proposing a change to the test procedure to allow calculation of PEI for pumps not subject to energy conservation standards.

B. Technology Options

For this NODA analysis, DOE evaluated hydraulic redesign, advanced motors, and variable-speed drives (''VSDs'') as potential technologies for reducing pump energy consumption. These technologies are discussed in the following sections.

1. Hydraulic Redesign

DOE evaluated five efficiency levels (''EL'') in the January 2016 Final Rule; each EL was developed according to efficiency percentiles (10th, 25th, 40th, 55th, and 70th percentile) and each percentile for each equipment class was assigned a C-value. 81 FR 4368, 4386. Ultimately, the pumps energy conservation standard was established at C-values corresponding to EL 2 for all equipment classes except for RSV pumps and ST pumps with a specific speed of 1,800 rpm. 81 FR 4368, 4369 and 4386 (see Table IV.2 of the January 2016 Final Rule detailing the adopted efficiency levels). Standards for these pump equipment classes were established at baseline, or EL 0.[5] *Id.*

During interviews, manufacturers stated that additional hydraulic redesign might be possible to reach EL 3 as presented in the January 2016 Final Rule; however, they pointed out that any such redesign would be as or more expensive than the previous redesign and energy savings would likely be minimal. In order to meet the standards set in the January 2016 Final Rule, many manufacturers redesigned their pumps to be as efficient as possible given pump family and certain technology limitations; most manufacturers did not redesign their pumps to just meet the standard. Therefore, for redesigned pumps that did not reach EL 4 or EL 5 as presented in the January 2016 Final Rule, manufacturers expressed concern that reaching these levels with a hydraulic redesign would be extremely difficult and costly. In particular, manufacturers commented that:

- MPC would begin to increase at EL 4 and EL 5 as presented in the January 2016 Final Rule due to finer part tolerances and manual surface finishing;
- Utility could be compromised. Some manufacturers stated that they had observed a warranty claim increase for redesigned pumps. Additionally, several manufacturers commented that they had to flatten the pump curve in order to achieve higher efficiency levels. A flatter pump curve can limit controllability and cause operational problems in some applications.[6]
- In some cases, manufacturers were or would be unable to maintain flange positions on some models during redesign. This means that a new pump cannot easily replace an older pump without changing piping into and out of the pump, which in turn may result in loss of business for that manufacturer or increase installation costs for end users in replacement situations.
- Manufacturers may choose not to redesign to EL 4 and EL 5, resulting in gaps in a product family, and the possibility that a consumer would then purchase a pump that was less efficient for their application than they would have purchased without such a standard.
- Manufacturers reported that they did not recoup the conversion costs incurred due to the redesigns required by the current DOE standards due to market pressures. Manufacturers expect the same outcome if DOE were to set more stringent standards.

DOE acknowledges that there are many pumps already on the market that meet EL 4 and EL 5 as presented in the January 2016 Final Rule. There are several reasons why this may be possible, even with manufacturers stating that meeting these ELs are not feasible for all pumps:

- Choices to limit the impacts listed previously (increased MPC and labor/staffing needs, loss of utility for certain applications, potential loss of replacement business due to changed flange positions);
- Choosing to stay within the constraints of a product family in order to take advantage of shared common parts, as opposed to a substantially more expensive redesign of an entire product family or a redesign that would make a model(s) different from the rest of the family;
- Variability in designer skill and experience with computational fluid dynamics;
- Irregularities in the three-dimensional surface that sets the standard level as a function of flow and specific speed. To harmonize with the European Union (''EU''), the surface used to determine DOE energy conservation standards is based on EU data and not data specific to the U.S. market. (*See* January 2016 Final Rule TSD Appendix 3B p. 5, EERE–2011–BT–STD–0031–0056) This means that there may be some points of flow or specific speed where EL 4 or EL 5, as presented in the January 2016 Final Rule, may be easier to achieve than at other points.

Issue 3: DOE requests comment on the percentage of basic models that would be impacted by the following factors if manufacturers were to redesign their pumps to EL 4 and EL 5 (as presented in the January 2016 Final Rule): (1) need to flatten the pump curve beyond potentially acceptable levels for the existing market for a given model or any reported issues with controllability; (2) increased warranty claims; and (3) increased MPCs for pumps redesigned to higher efficiencies. Additionally, DOE requests comment on which EL (as presented in the January 2016 Final Rule) and for which pump classes (or hp ranges) these issues would first appear.

Issue 4: DOE also seeks comment on the availability of designers skilled enough to design a pump that can reach EL 4 and EL 5 and be readily manufactured.

Issue 5: Additionally, DOE requests comment on any other issues that may prevent manufacturers from redesigning pumps to reach higher efficiency levels, including other utility issues.

Issue 6: DOE requests comment on the fraction of installations in which consumers would have to make piping changes as a result of a change in flange position (as opposed to purchasing another model with the desired flange

[4] C-value is the translational component of a three-dimensional polynomial equation that describes the attainable hydraulic efficiency of pumps as a function of flow at best efficiency point (''BEP''), specific speed, and C-value. The C-value is used to define an efficiency level that a pump can readily attain across the entire regulated scope of flow and specific speed for that particular pump.

[5] DOE notes that the baseline for RSV pumps was equivalent to the EU's 40th percentile standard, as all RSV pumps had already been designed to meet that standard.

[6] Karrasik, Messina, Cooper, and Heald. ''Pump Handbook,'' 4th Edition, pp. 2.55–2.57.

positions), and the cost of such piping changes.

2. Advanced Motors

Advanced motors were not considered as a technology option in support of the January 2016 Final Rule. However, based on feedback from stakeholders, DOE is including advanced motors as a technology option in this NODA analysis. In this NODA, advanced motors refer to any motor paired with a pump that has a greater efficiency than the default motor referenced in the pumps test procedure. If DOE were to set an energy conservation standard that is stringent enough to require more efficient motors, some pumps may need to be paired with a motor in order to be sold in the U.S.[7] DOE has identified several potential issues with this technology option, which are listed below:

• *Replacement pumps.* If all pumps must be paired with motor for distribution into commerce, it is not clear how the replacement market for bare pumps would work.

• *Potential market disruption.* The majority of sales for most manufacturers are from bare pumps; distributors may then pair the pump with a motor (and possibly controls). Requiring that pumps be sold with a motor (by the pump's original equipment manufacturer) would likely have a negative impact on pump distributors and result in substantial disruption to the pumps market.

• *Potential consequences.* Larger stock in the field of older, more inefficient pumps. Requiring pumps to be paired with a motor for distribution in commerce is expected to increase the cost of the pump. Some end users may opt to repair rather than replace older, inefficient pumps. Additionally, if a motor fails before the pump fails, end users may choose a less efficient motor as a replacement.

• *Overlapping regulation.* The vast majority of motors paired with pumps subject to this rulemaking are already covered equipment (as electric motors) within the DOE appliance standards program. (subpart B to 10 CFR part 431)[8] DOE is currently undertaking an energy conservation rulemaking to consider amended standards for electric motors (*see* Docket No. EERE–2020–BT–STD–0007). This prevents DOE from determining how much energy savings would result from a pumps design option related to motor efficiency without potentially double-counting energy savings also accounted for in the electric motors rulemaking.

These issues (excluding overlapping regulation) are discussed in more detail in section III.B.3 of this document in the context of VSDs, but apply similarly to motors.

Issue 7: DOE requests comment on how a standard that requires an advanced motor to be paired with a bare pump would impact: (1) the bare pump replacement market; (2) the distributor market and business model; (3) the repair of pumps rather than their replacement and (4) the replacement of failed motors with less efficient motors. DOE also requests feedback on any potential consistency concerns with a standard that requires an advanced motor to be paired with a bare pump and current or future energy conservation standards for electric motors.

3. Variable-Speed Drives

Variable-speed drives were considered as a technology option in the January 2016 Final Rule. (*See* Chapter 3 of the January 2016 Final Rule TSD, EERE–2011–BT–STD–0031–0056, pp. 3–29 to 3–35) VSDs were screened out of the January 2016 Final Rule analysis because DOE determined the technology may not significantly improve efficiency for all pumps within each equipment class. (*See* Chapter 4 of the January 2016 Final Rule TSD, EERE–2011–BT–STD–0031–0056, pp. 4–5) In fact, DOE determined that energy use would increase for many applications. *Id.*

As discussed in chapter 1 of the TSD accompanying this NODA, DOE received comments from stakeholders recommending that VSDs be considered as a technology option in the current pumps analysis. (CA IOUs, No. 10 at p. 12; ASAP and NRDC, No. 7 at p. 2; NEEA, No. 11 at p. 6) These stakeholders referenced a recent study by NEEA that reported significant savings for both constant-load and variable-load pump applications.[9] If DOE were to set an energy conservation standard that is stringent enough to require VSDs, all pumps would have to be paired with a motor and VSD in order to be sold in the U.S.

During interviews, manufacturers shared multiple concerns about requiring pumps to be sold with a VSD. However, many manufacturers also acknowledged that it would be ideal for DOE to incentivize applications to use controls with their pumps and suggested that a rebate program would be the best way to do this since it would limit all of the potential unintended consequences discussed. On April 27, 2022, DOE published a Notice of Availability and Solicitation of Public Comment on the Draft Implementation Guidance Pertaining to the Extended Product System Rebate Program and Energy Efficient Transformer Rebate Program. 87 FR 25006. This draft implementation guidance includes a rebate program for pumps designed to incentivize adding controls to existing facilities (by specifying a maximum qualifying variable-load PEI (''PEI_{VL}'')), with maximum rebate payments to a given entity of up to $25,000 per calendar year. For more information, refer to the guidance web page: *www.energy.gov/eere/buildings/draft-implementation-guidance-pertaining-extended-product-system-rebate-program-and.*

a. Potential Disruption to Pumps Market

The primary concern shared by most manufacturers was how disruptive a requirement to sell pumps with controls would be for the overall pumps market. Manufacturers stated that end users typically have specific controller requirements, meaning they have one controller brand for their facility, primarily to simplify maintenance and operation. Because pump manufacturers typically stock one to two controller brands, distributors often buy the pump or pump and motor from the pump manufacturer but buy the controls from the controls manufacturer. Additionally, if pumps were required to be sold with motors and VSDs, pump manufacturers would have to greatly increase their floor space, inventory, and unique model numbers in order to satisfy end users who would currently work through a distributor. In this case, there could be significantly large impacts to

[7] DOE acknowledges that pump manufacturers may be able to hydraulically redesign a bare pump to reach the same PEI level as a minimally compliant bare pump sold with a more efficient motor. In this case, the issues discussed in section III.B.1 might apply. DOE would consider an appropriate ordering of any design options for the engineering analysis after conducting a screening analysis, which it has not done for this NODA. (See discussion in section III.C.1. of this document).

[8] Some motors paired with pumps subject to this and other pump rulemakings (*e.g.,* dedicated purpose pool pumps, circulator pumps) are covered by the DOE appliance standards program as small electric motors (subpart X to 10 CFR part 431). Small electric motors that are components of another piece of covered equipment do not have to comply with standards prescribed for this equipment. (*See* 10 CFR 431.466(a). *See also* 42 U.S.C. 6317(b)(3)). As such, the problem of overlapping regulation may not apply to covered products and equipment that are only paired with small electric motors (as defined in 10 CFR 431.462).

[9] Northwest Energy Efficiency Alliance, ''Extended Motor Products Savings Validation Research on Clear Water Pumps and Circulators,'' August 29, 2029. *See www.neea.org/img/documents/XMP-Savings-Validation-Research-on-Clean-Water-Pumps-and-Circulators.pdf.*

distributors, who would provide less added value.

Manufacturers also commented that there are supply chain constraints. Specifically, pump manufacturers were skeptical about the ability of VSD manufacturers to be able to meet the increased demand that an energy conservation standard requiring VSDs would cause. Manufacturers also stated that the VSD technology for higher horsepower motors is not as mature as that for lower horsepower motors, and that, in some cases, they already had trouble obtaining VSDs of acceptable quality for higher horsepower motors.

Issue 8: DOE seeks comment on the frequency with which pump consumers specify only a single controller brand, as well as on the number of controller brands typically stocked by a pump manufacturer.

Issue 9: DOE seeks comment on how a VSD requirement for pumps would impact distributors.

Issue 10: DOE requests comment on whether there would be sufficient quantity and quality of VSDs available if there were a VSD requirement for pumps.

b. Potential Issues With the Replacement Market

The EU is evaluating its current standard for pumps and issued a call of evidence on January 21, 2022, that included a recommendation for evaluating an extended product approach for pumps.[10] In its comments, EuroPump [11] supported the extended product approach as a means to capture savings that were not captured by the current EU regulation. However, while efficiency organizations provided general support for the extended product approach, they also stated that VSDs should only be required as needed to minimize material waste, while commenting that around 50 percent of pump systems benefit from a VSD.[12] During interviews, manufacturers also voiced concerns about how a replacement parts market would work if pumps were required to be sold with motors and controls. If a bare pump is sold as a replacement part, that practice would eliminate the waste associated with replacing an entire pump system. However, selling a bare pump as a replacement part without controls opens a loophole where end users could purchase the bare pump and operate it without controls. This is also an issue for advanced motors, although to a lesser degree since only the motor and bare pump would have to be replaced, not the controller.

Issue 11: DOE seeks comment on possible methods to retain a replacement market for bare pumps while preventing a loophole where bare pumps could be purchased for current and new installations.

c. Potential Energy Use Impacts

Through interviews conducted with manufacturers, DOE has also identified several ways that VSDs may impact pump energy use (if pumps must be sold with advanced motors or VSDs) that are not accounted for in this NODA's energy use analysis but would need to be to justify new or amended standards that DOE may decide to adopt.

First, if a motor sold with a pump fails, the customer could replace the failed motor with a less efficient motor since current DOE standards for electric motors do not require advanced technology and/or controls. This issue is the reason why stakeholders requested that DOE conduct a rulemaking using its direct final rule authority to establish standards for dedicated-purpose pool pump (''DPPP'') motors. In their view, because the adopted DPPP standards require DPPPs (at least in certain cases) to be sold with a VSD. Establishing DPPP motor standards would ensure that the expected savings from the DPPP standards would occur. 83 FR 45851, 45853 (September 11, 2018). In the case of DPPPs, there are motors specific to DPPPs, such that adopting a motor standard specific to DPPPs would be feasible. In the case of pumps, the motors used with this equipment are used in multiple applications, so DOE cannot adopt motor standards, as it did for DPPPs, that are specific to pumps. This issue also applies to the advanced motors design option discussed previously.

Second, requiring all pumps to be sold with controls could cause an increase in repairs of inefficient pumps because replacement pumps would have the added cost of a VSD. This would delay the purchase of a new pump with motor and controls. This issue also applies to the advanced motors design option discussed previously, although to a lesser extent since a motor is less expensive than a motor-plus-VSD combination.

Third, pumps designed for integrated controls may have a lower efficiency if installed in properly-sized constant-load applications since there are additional electrical inefficiencies when a controller is added to a motor. If a system operates at a constant load with an appropriately-sized pump, these additional losses become greater than the benefits of a VSD.

Issue 12: DOE seeks comment on the frequency with which customers would replace an inverter-only motor and control with an induction motor upon the end of the lifetime of the motor originally purchased with the pump.

Issue 13: DOE seeks comment on how bare pump repair frequency may change if customers delay purchasing a more expensive pump with motor and controls. For example, in its DPPP motors analysis, DOE assumed that in the standards case, a greater percentage of consumers would repair their pump as compared to the no-new-standards case.

Issue 14: DOE seeks comment on the percentage of pump models that would be redesigned for controls if they were required to be sold with them, and of those, what percentage would have worse efficiency in constant-load applications than the current pump model, and by how much the efficiency or energy use would be impacted.

d. Potential Cost Impacts

During interviews, manufacturers identified potential cost impacts that have not been accounted for in this analysis but would need to be in any analysis to justify new or amended standards. Specifically, there could be significant installation difficulties or costs for some applications in which electrical upgrades or filters may be required. In addition, there could be a need for re-piping since, in this scenario, pump manufacturers may not offer the same bare pumps. Re-piping is discussed previously in relation to hydraulic redesign. Finally, there could be downtime for facilities while they re-pipe or perform electrical upgrades.

Issue 15: DOE seeks comment on the frequency with which customers who would be required to buy a pump with a VSD would need to add filters or perform electrical upgrades, and the estimated cost of such equipment and installation.

Issue 16: DOE seeks comment on the frequency with which customers might need to re-pipe to accommodate a pump with motor and controls rather than a drop-in replacement pump, and the estimated cost of re-piping.

[10] The document discusses the possibility of covering the ''extended product'' referring to the pump, motor, and VSD as one unit. *See www.ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12831-Ecodesign-requirements-for-water-pumps-review-_en.*

[11] Europump is the European Association of Pump Manufacturer Associations. *See* Comments at *www.ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12831-Ecodesign-requirements-for-water-pumps-review-/F2822271_en.*

[12] *See* comments from ECOS, coolproducts, and the European Environmental Bureau, available at *www.ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12831-Ecodesign-requirements-for-water-pumps-review-/F2878588_en.*

Issue 17: DOE seeks quantitative data on the overall installation costs of pumps with VSDs compared to bare pumps, as well as any differences in lifetime or repair and maintenance costs for pumps sold with VSDs as compared to bare pumps.

C. Analysis

The following sections provide a brief overview of the results from the analyses DOE conducted for this NODA. Full details of the methodology can be found in chapters 2 through 6 of the TSD accompanying this NODA. Summaries of comments received from the August 2021 RFI responses related to analytical methodologies are included in chapter 1 of the TSD accompanying this NODA.

1. Screening

DOE uses the following five screening criteria to determine which technology options are suitable for further consideration in an energy conservation standards rulemaking:

(1) *Technological feasibility.* Technologies that are not incorporated in commercial products or in working prototypes will not be considered further.

(2) *Practicability to manufacture, install, and service.* If it is determined that mass production and reliable installation and servicing of a technology in commercial products could not be achieved on the scale necessary to serve the relevant market at the time of the projected compliance date of the standard, then that technology will not be considered further.

(3) *Impacts on product utility or product availability.* If it is determined that a technology would have a significant adverse impact on the utility of the product for significant subgroups of consumers or would result in the unavailability of any covered product type with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as products generally available in the United States at the time, it will not be considered further.

(4) *Adverse impacts on health or safety.* If it is determined that a technology would have significant adverse impacts on health or safety, it will not be considered further.

(5) *Unique-pathway proprietary technologies.* If a design option utilizes proprietary technology that represents a unique pathway to achieving a given efficiency level, that technology will not be considered further due to the potential for monopolistic concerns. 10 CFR part 430, subpart C, appendix A, sections 6(b)(3) and 7(b).

If DOE determines that a technology, or a combination of technologies, fails to meet one or more of the listed five criteria, it will be excluded from further consideration in the engineering analysis.

DOE did not conduct a screening analysis for this NODA and instead is presenting analyses for the three technologies discussed in section III.B of this document (*i.e.,* hydraulic redesign, advanced motors, and VSDs) in order to receive stakeholder feedback. In a future analysis to support this rulemaking, based on many of the issues listed in section III.B of this document, DOE may screen out some or all of the listed technologies based on one or more of the screening criteria.

Issue 18: DOE requests comment on if or how the five screening criteria may limit application of hydraulic redesign, advanced motors, or VSDs as design options in the current rulemaking analysis.

2. Engineering

The purpose of the engineering analysis is to determine the incremental manufacturing cost associated with producing products at higher efficiency levels. The primary considerations in the engineering analysis are the selection of efficiency levels to analyze (*i.e.,* the ''efficiency analysis'') and the determination of product cost at each efficiency level (*i.e.,* the ''cost analysis'').

DOE conducts the efficiency analysis using either an efficiency-level approach, a design-option approach, or a combination of both. Under the efficiency-level approach, the efficiency levels to be considered in the analysis are determined based on the market distribution of existing products (in other words, observing the range of efficiency and efficiency level ''clusters'' that already exist on the market). This approach typically starts with compiling a comprehensive list of products available on the market, such as from DOE's product certification database. Next, the list of models is ranked by efficiency level from lowest to highest, and DOE typically creates a scatter plot to visualize the distribution of efficiency levels. From these rankings and visual plots, efficiency levels can be identified by examining clusters of models around common efficiency levels. The maximum efficiency level currently available on the market can also be identified.

Under the design option approach, the efficiency levels to be considered in the analysis are determined through detailed engineering calculations and/or computer simulations of the efficiency improvements from implementing specific design options that have been identified in the technology assessment. In an iterative fashion, design options can also be identified during product teardowns as described. The design option approach is typically used when a comprehensive database of certified models is unavailable (for example, if a product is not yet regulated)—making the efficiency-level approach unusable.

In certain rulemakings, the efficiency-level approach (based on actual products on the market) will be extended using the design option approach to interpolate between levels to define ''gap fill'' levels (to bridge large gaps between other identified efficiency levels) and/or to extrapolate to the ''max tech'' level (the level that DOE determines is the maximum achievable efficiency level), particularly in cases where the ''max tech'' level exceeds the maximum efficiency level currently available on the market.

The cost analysis portion of the engineering analysis is conducted using one or a combination of cost approaches. The selection of the cost approach depends on a variety of factors such as the availability and reliability of information on product features and pricing, the physical characteristics of the regulated product, and the practicability of purchasing the product on the market. DOE generally uses the following cost approaches:

- *Physical teardown:* Under this approach, DOE physically dismantles a commercially available product, component-by-component, to develop a detailed bill of materials (''BOM'') for the product.
- *Catalog teardown:* In lieu of physically deconstructing a product, DOE identifies each component using parts diagrams (available from manufacturer websites or appliance repair websites, for example) to develop the BOM for the product.
- *Price surveys:* If neither a physical nor catalog teardown is feasible (for example, for tightly-integrated products that are infeasible to disassemble and for which parts diagrams are unavailable), DOE conducts retail price surveys by scanning retailer websites and other marketing materials. This approach must be coupled with assumptions regarding distributor markups and retailer markups in order to estimate the actual manufacturing cost of the product.

The engineering analysis conducted for this NODA used an efficiency level approach consistent with that used in the January 2016 Final Rule analysis

along with a new design option approach. The cost analysis relied on physical and catalog tear downs and confidential information provided by manufacturers.

a. Methodology

DOE conducted two engineering analyses for this NODA. The first analysis is consistent with that performed to support the January 2016 Final Rule in which only hydraulic redesign was considered as a design option. 81 FR 4368, 4384. This approach developed conversion costs that DOE expected industry to incur when redesigning non-compliant pumps to meet a potential new standard. Discussions with manufacturers indicated that MPC would not increase as efficiency increases.

The second analysis examined the possibility of motors and controls as technologies to improve pump efficiency. This analysis developed MPC versus efficiency (*i.e.,* PEI) curves. DOE assumed the motors and controls approach would not result in conversion costs for manufacturers. DOE separated these analyses into a ''branched'' approach that assumes that no hydraulic redesign would occur relative to the current baseline if a motors or controls standard were adopted, and no pumps would shift towards only being sold with motors or controls in a hydraulic redesign scenario. This assumption allowed DOE to separate conversion costs from increases in MPC. DOE performed both of these analyses for pumps larger than 1 horsepower and for SVILs. Details of these analyses are discussed in sections III.C.2.b and III.C.2.c of this document.

Assumptions

Since DOE had limited data for pumps that are not currently subject to standards, the Department used similar pump categories that are currently subject to standards as a proxy to estimate costs and performance metrics for pumps that are not currently subject to standards. Table III.2 summarizes the pump categories used as proxies for the pump categories where DOE had insufficient data to conduct an analysis. The specific instances where DOE used these proxies are discussed in more detail in Chapter 2 of this TSD accompanying this NODA.

TABLE III.2—PUMP CATEGORY SIMILARITIES USED THROUGHOUT ANALYSIS

Pump category with insufficient data	Pump category used as proxy
Between Bearing	End-Suction.
Small Vertical In-Line	In-Line.
Radially Split Horizontal	Radially Split Vertical.
Vertical Turbine	Submersible Turbine.
End Suction 1200 rpm	End-Suction 1800 rpm and 3600 rpm.
In-Line 1200 rpm	In-Line 1800 rpm and 3600 rpm.

Additionally, to make use of older performance data, DOE assumed that for pumps that are not currently subject to standards, performance data obtained during the 2014 pumps negotiations would provide an accurate summary of the performance of these pump models on the market today.

Issue 19: If DOE's assumptions are not appropriate, DOE requests updated shipments and performance data for BB, SVIL, RSH, and VT pumps. DOE also requests updated shipments and performance data for pumps sold at a specific speed of 1,200 rpm and for ST pumps with a bowl diameter greater than 6 inches.

Constant-Load and Variable-Load Pumps

In the analysis for the January 2016 Final Rule, DOE conducted one analysis to encompass both CL and VL equipment classes. 81 FR 4368, 4382. Constant-load pumps are sold without controls and variable-load pumps are sold with controls. 10 CFR 431.466. Since only one analysis was performed for both constant- and variable-load pump classes, the standards for these classes are the same. Setting the PEI metric in this way was intended to incentivize manufacturers to sell pumps with controls as an alternative to hydraulic redesign. As discussed in chapter 1 of the TSD accompanying this NODA, some stakeholders requested that DOE establish a separate set of C-values for VL pumps so that standards for VL pumps could be raised to require that any bare pumps sold with controls would also meet the PEI_{CL} for bare pump efficiency before adding controls. During manufacturer interviews, some manufacturers observed that some companies were selling pumps with controls that do not meet the bare pump standard; however, DOE notes the current standard is silent as to how a pump distributed into commerce can meet the energy conservation standard.

DOE is concerned that increasing the standard for VL classes may increase their cost relative to CL classes. This may result in equipment class switching, where consumers who would have purchased a pump with a motor and control may purchase a bare pump or a bare pump with only a motor in order to reduce their first costs. However, DOE also acknowledges that sales of pumps with motors and controls do not seem to have been driven by the option for manufacturers to sell only into the VL class and instead is limited by market demand.

Issue 20: DOE seeks comment on the likelihood of equipment class switching or other unintended consequences if DOE were to set a higher standard for VL equipment classes.

For this NODA, DOE's analysis is consistent with its approach supporting the January 2016 Final Rule. However, DOE did evaluate VSDs as a potential technology for reducing energy consumption in this NODA. This analysis could be applied differently to CL and VL classes in future rulemaking analyses.

SVILs

As discussed in the April 2022 TP NOPR, stakeholders universally supported addressing SVILs as part of the commercial and industrial pump rulemaking. 87 FR 21268, 21275. This support aligns with recommendations from the Circulators Working group.[13] (Docket No. EERE–2016–BT–STD–0004, No. 58, Recommendation #1B at pp. 1–2) However, during interviews, manufacturers provided conflicting suggestions for how DOE should conduct its SVIL analysis. One group of manufacturers suggested evaluating hydraulic redesign only for SVILs,

[13] On February 3, 2016, DOE published its intention to establish a working group under the Appliance Standards and Rulemaking Federal Advisory Committee (''ASRAC'') to negotiate a test procedure and energy conservation standards for circulator pumps. 81 FR 5658. Throughout this document this working group shall be referred to as ''the Circulator Pumps Working Group.''

similar to the approach taken in the January 2016 Final Rule for IL pumps. In this case, any new SVIL standards would be consistent with IL pump standards. A subset of manufacturers viewed this approach as appropriate since many SVILs are a 4-pole version of a 2-pole IL pump. Another group of manufacturers suggested that potential SVIL standards should be equivalent to any future standards for circulator pumps. Manufacturers expect that the circulators analysis will be based on motor and controls design options, consistent with recommendations by the Circulators Working Group to set a standard at EL 2 that would essentially require a single-speed electronically commutated motor. (Docket No. EERE–2016–BT–STD–0004, No. 98 Recommendation #1 at p. 1 and No. 97 at p. 2). In this case, SVILs would be a potentially less efficient and less costly substitute for circulators. Additionally, DOE received conflicting feedback on whether circulators and SVILs would compete with, or act as substitutes for, each other. Some manufacturers stated that an SVIL would never be substituted for a circulator, while others said that it was possible.

Issue 21: DOE requests comment on specific applications for which SVILs could be used instead of circulators and how an SVIL would need to be modified for use in these applications.

Issue 22: DOE requests comment on the portion of the SVIL market whose bare pumps are already subject to DOE's IL pump standards. Specifically, what portion of SVIL bare pumps are a different pole version of IL pumps, and what portion of SVIL pumps are a separate product family?

Issue 23: DOE requests comment on the potential benefits and drawbacks of setting standards for SVILs that align with circulator pumps versus setting standards for SVILs that align with IL pumps.

b. Hydraulic Redesign Approach

In this NODA, DOE evaluated hydraulic redesign using the same approach that it used in the January 2016 Final Rule. 81 FR 4368. In the January 2016 Final Rule, DOE assumed that hydraulic redesign would be the only design option used by manufacturers to meet the energy conservation standard.[14] 81 FR 4368, 4416. Conversations with manufacturers indicated that this assumption was appropriate in order for most pump families to meet the current energy conservation standard. The conversion costs presented in the January 2016 Final Rule assumed that every pump not meeting the energy conservation standard would either be redesigned to just meet the prescribed standard or removed from the market. However, during interviews, many manufacturers stated that they redesigned their pumps to be as efficient as possible with the technology and resources available at the time. DOE analyzed its Compliance Certification Database (''CCD'') to confirm this assertion. Table III.3 summarizes the estimated distribution, by equipment class, over the ELs 2, 3, 4, and 5, as defined in the January 2016 Final Rule. Table III.4 shows the current distribution efficiency distribution from the CCD, by pump equipment class, over ELs 0, 1, 2 and 3.

TABLE III.3—PROJECTED EFFICIENCY DISTRIBUTIONS BY EQUIPMENT CLASS AS PRESENTED IN THE JANUARY 2016 FINAL RULE

Product class	2016 EL 2 (%)	2016 EL 3 (%)	2016 EL 4 (%)	2016 EL 5 (%)	Total (%)
ESCC, 1800	52	11	13	24	100
ESCC, 3600	27	3	4	67	100
ESFM, 1800	39	24	10	27	100
ESFM, 3600	44	16	11	29	100
IL, 1800	41	11	11	38	100
IL, 3600	41	5	12	43	100
ST, 3600	46	6	6	43	100

TABLE III.4—CCMS EFFICIENCY DISTRIBUTIONS BY EQUIPMENT CLASS USING MANUFACTURER DATA FROM THE JANUARY 2016 FINAL RULE POWER BIN DISTRIBUTIONS

Product class	NODA EL 0 (%)	NODA EL 1 (%)	NODA EL 2 (%)	NODA EL 3 (%)	Total (%)
ESCC, 1800	42	6	7	45	100
ESCC, 3600	20	3	3	74	100
ESFM, 1800	32	17	8	43	100
ESFM, 3600	29	8	10	53	100
IL, 1800	33	8	8	52	100
IL, 3600	36	1	10	52	100
ST, 3600	47	5	4	44	100

The hydraulic redesign approach was conducted in the same manner as the January 2016 Final Rule's analysis. 81 FR 4368, 4387. (*See also* Chapter 5 of the January 2016 Final Rule TSD, EERE–2011–BT–STD–0031–0056, pp. 5–30 to 5–42)

For currently regulated pumps, DOE set the baseline efficiency at the standard. In the January 2016 Final Rule, the pumps energy conservation standard was set at EL 2 for all equipment classes except for RSV pumps and ST pumps with a specific speed of 1,800 rpm. 81 FR 4368, 4369

[14] Other technologies hydraulic redesign may encompass are clearances, seals, and other volumetric losses.

and 4386. Standards for RSV pumps and ST pumps with a specific speed of 1,000 rpm were set at baseline, or EL 0. *Id.* DOE did not redefine efficiency levels for those pumps whose standard was set at EL 2 for this NODA; instead, DOE shifted ELs 2 through 5 so that EL 2 became EL 0 (or baseline) in this NODA analysis. The new nomenclature is summarized in Table III.5 and is used in the rest of this NODA and in the TSD accompanying this NODA. EL 1, EL 2, and EL 3 have the same C-values as EL 3, EL 4, and EL 5, respectively, as presented in the January 2016 Final Rule.

TABLE III.5—EFFICIENCY LEVEL NOMENCLATURE CHANGES FOR PUMPS CURRENTLY SUBJECT TO STANDARDS

January 2016 Final Rule efficiency level	Current NODA efficiency level
EL 0	
EL 1	
EL 2	EL 0 (Baseline).
EL 3	EL 1.
EL 4	EL 2.
EL 5	EL 3.

For pumps that were not analyzed in the January 2016 Final Rule, DOE defined new efficiency levels based on C-values from pump performance data. DOE had model level performance data available for some BB, VT, and SVIL pumps. DOE did not have data available for pumps with nominal speeds of rotation at 1,200 rpm, RSH pumps, or ST pumps with bowl diameters greater than 6 inches. For this reason, DOE did not develop C-values for these pump categories in this analysis.

DOE developed preliminary C-values for BB and VT pumps using the same procedure used in the January 2016 Final Rule. (*See* Chapter 5 of the January 2016 Final Rule TSD, EERE–2011–BT–STD–0031–0056, pp. 5–15 to 5–16) Each efficiency level corresponded to a percentile of pump performance. The C-value calculated for the efficiency level was the C-value for the minimally compliant pump at the prescribed performance percentile.

DOE set the baseline for pumps not currently subject to standards at the 5th percentile of pump performance, just as was done for pumps in the January 2016 Final Rule. (*See* Chapter 5 of the January 2016 Final Rule TSD, EERE–2011–BT–STD–0031–0056, pp. 5–16 to 5–19) The reasons for using the 5th instead of the 0th percentile are discussed in Chapter 5, section 5.8.6 of the January 2016 Final Rule TSD. (EERE–2011–BT–STD–0031–0056)

Conversion costs are based on those used in the January 2016 Final Rule, manufacturer interviews, data from the DOE CCD, and data collected during the 2014 pump negotiations.[15] 81 FR 4368, 4388. A more detailed description of the development of these costs is included in chapter 2 of the TSD accompanying this NODA. As stated previously, DOE assumed that hydraulic redesign did not increase the MPC of pumps but may consider MPC increases in future analyses. The estimated total conversion costs and estimated per model conversion costs for pumps currently subject to standards are summarized in Table III.6 and Table III.7, respectively. Estimated total conversion costs and estimated per model conversion costs for pumps not currently subject to standards are summarized in Table III.8 and Table III.9, respectively. Based on conversations with manufacturers, the per model costs are higher than those estimated in the January 2016 Final Rule. The conversion costs are used as inputs to the manufacturer impact analysis, presented in section III.C.4 of this document. As previously discussed, DOE accounted for conversion costs in the LCC in the January 2016 Final Rule but DOE has not conducted an LCC for this NODA.

Due to a lack of performance data for the pumps that were not analyzed in the January 2016 Final Rule, DOE was unable to conduct the national energy savings analysis using the C-values developed for this NODA and relied instead on the proxy equipment classes that were analyzed in the January 2016 Final Rule discussed in section III.C.3 of this document. As a result, the national energy savings associated with each EL analyzed may not directly correspond to the manufacturer impacts associated with each EL. DOE would address this inconsistency in any future analyses.

TABLE III.6—ESTIMATED TOTAL CONVERSION COSTS FOR CURRENTLY REGULATED PUMPS

Class	EL 1	EL 2	EL 3
ESCC	$28,771,000	$97,667,000	$177,414,000
ESFM	65,068,000	204,491,000	390,974,000
IL	38,456,000	78,965,000	148,440,000
ST	42,046,000	106,922,000	169,737,000

TABLE III.7—ESTIMATED PER MODEL CONVERSION COSTS FOR CURRENTLY REGULATED PUMPS

Class	EL 1	EL 2	EL 3
ESCC	$167,000	$235,000	$301,000
ESFM	167,000	235,000	301,000
IL	201,000	283,000	363,000
ST	203,000	288,000	374,000

[15] The data collected in the 2014 pump negotiations is described in detail in the 2016 final rule TSD (*see* Chapter 5 for the January 2016 Final Rule TSD, EERE–2011–BT–STD–0031–0056, pp. 5–6 to 5–8).

TABLE III.8—ESTIMATED TOTAL INDUSTRY CONVERSION COSTS FOR NOT CURRENTLY REGULATED PUMPS

Pump category	EL 1	EL 2	EL 3	EL 4	EL 5
BB	$3,356,000	$14,057,000	$26,832,000	$47,273,000	$85,095,000
VT	252,000	988,000	1,774,000	3,122,000	5,625,000
ES.1200	4,253,000	12,291,000	21,547,000	38,884,000	60,316,000
IL.1200	767,000	2,782,000	4,126,000	7,284,000	11,279,000
SVIL	1,055,000	4,419,000	8,461,000	14,941,000	26,917,000

TABLE III.9—ESTIMATED PER MODEL CONVERSION COSTS FOR NOT CURRENTLY REGULATED PUMPS

Pump category	EL 1	EL 2	EL 3	EL 4	EL 5
BB	$156,000	$245,000	$275,000	$388,000	$498,000
VT	105,000	165,000	185,000	260,000	335,000
ES.1200 [16]	105,000	165,000	185,000	260,000	335,000
IL.1200	107,000	149,000	167.000	260,000	301,000
SVIL	101,000	159,000	179,000	253,000	325,000

Issue 24: DOE requests shipment and performance data for (1) pumps with a nominal speed of rotation at 1,200 rpm; (2) RSH pumps; and (3) ST pumps with bowl diameters greater than 6 inches.

Issue 25: DOE requests comment on its conversion cost approach for evaluating hydraulic redesign.

c. Motors and Controls Approach

The January 2016 Final Rule engineering analysis evaluated one representative configuration per equipment class. For this NODA analysis, DOE instead selected 3 representative units per equipment class to assess motor and control technologies and their effect on the efficiency of a pump as measured by the DOE test procedure. These representative units are described by head flow pairings. The three representative units were selected to cover the most common head and flow areas in a given equipment class based on unit shipments, which were determined from unit performance and shipment data DOE collected during the 2014 pumps negotiations. The process of selecting representative units is described in more detail in chapter 2 of the TSD accompanying this NODA.

As discussed in section III.C.2.a of this document, DOE assumed no hydraulic redesign would be conducted if motors and controls were used to meet a potential new energy conservation standard. Therefore, DOE assumed that the baseline for each representative unit is a minimally compliant pump according to the current pump standard and the current DOE electric motor standards summarized in Table 5 of 10 CFR 431.25, effective as of June 1, 2016. For pumps currently subject to standards, PEI is equal to 1. For pumps not currently subject to standards, DOE used the preliminary EL 0 C-value for all PEI calculations, which means that pumps not currently subject to standards were assumed to have a PEI of 1.

DOE defined the efficiency levels for the motors and controls approach based on the technologies applied to the representative unit. DOE analyzed single-speed induction motors, improved single-speed induction motors, and VSDs for pumps larger than 1 hp. Therefore, each representative unit had three efficiency levels: baseline (EL 0) with a bare pump paired to a minimally compliant single-speed induction motor, EL 1 with the same bare pump paired to a more efficient single-speed induction motor, and EL 2 with the same configuration as EL 1 paired with a VSD. These efficiency levels are consistent with the efficiency levels used for SVIL pumps except DOE included electronically commutated motors (''ECM'') as a technology for SVILs. DOE has tentatively determined that ECMs are not produced at hp ratings large enough for commercial industrial pumps. DOE maintained similar efficiency levels across SVILs and larger pumps to ensure consistency in any potential standards. The efficiency levels for all pumps are summarized in Table III.10.

TABLE III.10—MOTOR AND CONTROLS APPROACH EFFICIENCY LEVEL SUMMARY

Pump category	EL 1	EL 2	EL 3	EL 4
Pumps Larger Than 1 HP	Single-speed induction motor	Improved single-speed induction motor	VSD	
SVILs	Single-speed induction motor	Improved single-speed induction motor	ECM	VSD

The motor and controls approach evaluated MPCs with data from the prior standards rulemaking, electric motor teardowns, and VSD teardowns. The analysis evaluated efficiency with pump performance data, motor efficiency data, and default VSD performance from the DOE pumps test procedure.

Results from this analysis are not used in any of the downstream analyses in this NODA but could be considered in future analyses if the technology options pass the screening criteria. Additional analysis details and results are included in chapter 2 of the TSD accompanying this NODA.

Issue 26: DOE requests comment on its approach for evaluating pump efficiency and costs with the addition of advanced motors and/or VSDs for pumps larger than 1 hp.

Issue 27: DOE requests comment on its approach for evaluating pump efficiency and costs with the addition of

[16] ES.1200 and IL.1200 refer to end suction and in-line pumps with nominal speeds of 1,200 rpm.

advanced motors and/or VSDs for SVILs.

For future analyses, DOE may choose to convert MPCs to MSPs using manufacturer markups. DOE has tentatively determined that the markups used in the 2016 analysis and summarized in Table III.11 remain accurate. DOE has used similar assumptions between classes, as discussed in section III.C.2.a of this document, to estimate markups for pump classes not currently subject to standards.

TABLE III.11—INDUSTRY-AVERAGE MARKUPS BY PUMP CATEGORY

Efficiency level	Equipment class group						
	ESCC	ESFM	IL	ST	BB	VT	SVIL
EL 0	1.387	1.380	1.472	1.372	1.330	1.350	1.425
EL 1	1.387	1.387	1.472	1.397	1.368	1.369	1.462
EL 2	1.387	1.387	1.472	1.397	1.380	1.372	1.472
EL 3	1.387	1.387	1.472	1.397	1.387	1.397	1.472
EL 4	N/A				1.387	1.397	1.472
EL 5					1.387	1.397	1.472

Issue 28: DOE requests comment on the accuracy of the manufacturer markups presented in Table III.11.

2. National Energy Savings

DOE estimated national energy savings for hydraulic redesign only. DOE is not assessing national energy savings for the advanced motor technology option given the concurrent electric motor rulemaking noted in section III.B.2 of this document. DOE acknowledges that the potential national energy savings resulting from a VSD technology option could be substantially higher than for any hydraulic redesign efficiency level if such a technology option could be successfully implemented. However, DOE did not estimate national energy savings for this technology option given the significant hurdles discussed in section III.B.3 of this document, as well as current lack of information on how to factor some of these issues into the analysis (specifically, the potential inability of the supply chain to meet required demand as discussed in section III.B.3.a of this document, as well as the potential energy use impacts discussed in section III.B.3.c of this document.).

In order to estimate national energy savings from hydraulic redesign, DOE first conducted an energy use analysis and a shipments analysis, which are described in the following sections.

a. Energy Use Analysis

To conduct the energy use analysis for the current scope of pumps, DOE relied primarily on the methodology, efficiency levels, and energy use inputs from the January 2016 Final Rule (assuming EL 2 from the January 2016 Final Rule is now EL 0, and EL 5 is now EL 3, as discussed previously). Consumer inputs to the energy use analysis are based on operational demands that are independent of the pump's efficiency, while equipment inputs to the analysis are based on the efficiency of the pump. Consumer inputs include the consumer duty point (defined by the flow and head), annual load profile, and annual operating hours. For this NODA, DOE updated the energy use analysis based on efficiency distributions from the CCD and integration of a load profile from the January 2016 Final Rule VSD consumer subgroup analysis with revised load profile weighting. Further details can be found in chapter 3 of the TSD accompanying this NODA.

For pumps not currently subject to standards, DOE relied on proxy pump classes within the current scope of pumps, with the range and frequency of horsepower bins constrained based on data collected in manufacturer interviews. See Table III.12 of this document. The sample weights (sector, application, and power bin correlations) were also developed based on the proxy classes. For these pumps, DOE evaluated five (5) levels of hydraulic redesign (ELs 0–5), consistent with those analyzed for the proxy pump categories in the January 2016 Final Rule.

TABLE III.12—EQUIPMENT CLASS SUBSTITUTES FOR PUMPS NOT CURRENTLY SUBJECT TO STANDARDS

Equipment class not currently subject to standards	Substitute equipment class	Additional constraint
ESCC, 1200	ESCC, 1800.	
ESFM, 1200	ESFM, 1800.	
IL, 1200	IL, 1800.	
BB [a]	ESCC, 1800	Above power bin 4 (>10.53 HP).
SVIL	IL, 1800 and IL, 3600	Lowest power bin only (1–1.79 HP).
VT	VT–S, 3600.	

[a] Where the design speed is not specified, the equipment category represents aggregated design speeds at 1200, 1800, and 3600 rpm.

In addition, as discussed in chapter 1 of the TSD accompanying this NODA, NEEA suggested that DOE re-evaluate the load profiles used in its analysis. DOE undertook two sensitivities by conducting the energy use analysis using: (1) DOE's load profiles with BEP offset from NEEA and (2) NEEA load profiles with no BEP offset. This sensitivity is discussed in appendix 3A of the TSD accompanying this NODA.

Issue 29: DOE seeks model level performance data for all pumps not currently subject to standards as well as RSV pumps.

b. Shipments Analysis

In the shipments analysis for the January 2016 Final Rule, DOE developed shipment projections for pumps and, in turn, calculated equipment stock from 2020 through 2049, using the 2012 shipment estimates

from the Hydraulics Institute (Docket EERE–2013–BT–NOC–0039–0068). To project pump shipments, DOE relied primarily on Annual Energy Outlook 2014 forecasts.

For this NODA, DOE based the shipments analysis on the methodology used for the January 2016 Final Rule. DOE updated the AEO trends on which the shipment growth was based to reflect the most recent AEO—and for pumps not currently subject to standards, DOE used initial year shipments data from 2012, as discussed in section II.A. of this document. DOE projected shipments for the period 2028–2057. For more details on the shipments methodology, refer to chapter 4 of the TSD accompanying this NODA.

Issue 30: DOE seeks comment on the total shipments of pump categories not currently subject to standards as well as RSV pumps.

c. National Energy Savings

To calculate national energy savings over the lifetime of equipment shipped from 2028–2057, DOE relied on the energy use inputs and shipments analysis discussed previously and added data reflecting the penetration of VSDs in the no-new-standards case and standards cases starting at 18.5% in 2021, with an additional 0.67% penetration per year. See chapter 5 of the TSD accompanying this NODA for more details on DOE's derivation of these numbers. Although DOE did not analyze RSVs directly in the energy use and shipments analysis in this NODA or the 2016 Final Rule, due to lack of available data, DOE added scaler factors in the national energy savings analysis to account for potential energy savings from these pumps. These factors were based on a consideration of the distribution of power bins and efficiencies obtained from DOE's CCMS data. Refer to chapter 5 of the TSD accompanying this NODA for more detail. Table III.13 shows the full fuel cycle results.

DOE notes that this NES analysis relies on a technology option that DOE has not yet determined would be technologically feasible or would pass the screening analysis as a result of the issues discussed in section III.B of this document. In addition, as discussed in the previous sections, for pumps not currently subject to standards, the analysis relies on efficiency levels and data inputs from the 2016 rulemaking and proxy equipment classes. For RSVs, the analysis relies on scalers based on proxy class assumptions, and only includes two efficiency levels, baseline and max-tech. For both pumps not currently, and currently, subject to standards, the NES analysis does not account for the potential loss of utility, as discussed in section III.B.1 of this document, which could reduce savings. In addition, DOE does not have robust information on a nationally representative sample of load profiles for pumps across the United States. DOE acknowledges that while load profile selection could significantly impact energy savings estimates for variable-speed drives if analyzed, it does not significantly impact results for ELs based on hydraulic redesign. This can be seen in the sensitivity conducted based on NEEA load profiles, which results on average in increased NES of only 1 to 2 percent for TSLs 1 and 2. The full results for the sensitivity are shown in appendix 5A of the TSD accompanying this NODA.

For all of these listed reasons, the savings in Table III.13 should be viewed as an order-of-magnitude estimate for savings across different equipment categories rather than an indication of a specific outcome should a full analysis be conducted. As noted previously, DOE has not conducted an LCC or national net present value analysis for this NODA; such analyses would be assessed, if needed, along with the manufacturer impact analysis (discussed in section III.C.4 of this document) when determining whether new or amended standards would be economically justified at the considered levels, should any considered technology options pass the screening analysis.

TABLE III.13—ESTIMATES OF CUMULATIVE FULL-FUEL-CYCLE NATIONAL ENERGY SAVINGS (QUADS) BY TSL

[30 years of shipments]

Equipment class	Trial standard level *				
	1	2	3	4	5
	Quads **				
Currently Subject to Standards:					
ESCC, 1800	0.03	0.07	0.12	0.12	0.12
ESCC, 3600	0.04	0.11	0.21	0.21	0.21
ESFM, 1800	0.08	0.22	0.34	0.34	0.34
ESFM, 3600	0.01	0.03	0.05	0.05	0.05
IL, 800	0.04	0.08	0.13	0.13	0.13
IL, 3600	0.01	0.01	0.02	0.02	0.02
RSV	0.21	0.21	0.21	0.21	0.21
ST, 3600	0.08	0.17	0.23	0.23	0.23
Sub-Total	0.50	0.89	1.31	1.31	1.31
Not Currently Subject to Standards:					
BB	0.00	0.01	0.02	0.03	0.04
ESCC, 1200	0.00	0.01	0.01	0.02	0.02
ESFM, 1200	0.00	0.00	0.00	0.01	0.01
IL, 1200	0.00	0.00	0.00	0.00	0.01
SVIL	0.00	0.00	0.00	0.00	0.00
VT	0.00	0.00	0.01	0.01	0.01
Sub-Total	0.01	0.03	0.04	0.07	0.10

TABLE III.13—ESTIMATES OF CUMULATIVE FULL-FUEL-CYCLE NATIONAL ENERGY SAVINGS (QUADS) BY TSL—Continued

[30 years of shipments]

Equipment class	Trial standard level *				
	1	2	3	4	5
	Quads **				
Total	0.51	0.92	1.35	1.38	1.40

* Trial Standard Levels (''TSLs'') refer to standards case scenarios. In this analysis, each TSL corresponds to the same EL for each equipment category (*i.e.,* TSL 1 includes EL 1 for each pump category), with a few exceptions. For pumps currently subject to standards, DOE only examined 3 ELs; as such the results for TSL 4 and TSL 5 for those pumps are equivalent to those for TSL3. In addition, for the RSV class, which has models only at EL 0 and EL 3, TSL 1 and TSL 2 correspond to EL 3. Results for each TSL account for the base case efficiency distribution shown in Table III.4. DOE assumes that all pumps below a given EL ''roll-up'' to that EL, and all pumps at ELs above the given EL remain unchanged.

** The results are rounded to two decimals. All values showing 0.00 are non-zero values, with savings at the thousandths place or less.

Issue 31: DOE requests comment on the applicability of load profiles found in the NEEA data to the full sample of pumps in this analysis.

3. Manufacturer Impact Analysis

DOE has conducted an initial analysis on the potential impacts to manufacturers resulting from the analysis discussed in this NODA. In developing its analysis of the industry, DOE began with the financial parameters used in the January 2016 Final Rule. These financial parameters were, prior to the January 2016 Final Rule and during interviews preceding this rulemaking, vetted by multiple manufacturers and are the most robust equipment-specific estimates that are publicly available. DOE noted that tax rate estimates from before 2018 are not relevant for modeling future cash-flows due to the Tax Cuts and Jobs Act of 2017,[17] which was signed into law in December 2017 and changed the maximum Federal corporate tax rate from 35 percent to 21 percent. Table III.14 reflects these initial financial parameters.

TABLE III.14—INITIAL FINANCIAL METRICS

Financial metric	Initial estimate
Tax Rate *(% of Taxable Income)*[18]	21.0
Working Capital *(% of Revenue)*	18.6
SG&A *(% of Revenue)*	21.6
R&D *(% of Revenues)*	1.6
Depreciation *(% of Revenues)*	2.6
Capital Expenditures *(% of Revenues)*	2.4
Net Property, Plant, and Equipment *(% of Revenues)*	15.0

During interviews, manufacturers generally commented that their markups were similar to what was presented by the interviewers (see Table III.11), taking into account different product lines and distribution channels. However, manufacturers did state that markups did not change substantially across efficiency levels and that they were largely unable to recoup investments made to comply with the existing energy conservation standards. Accordingly, DOE proceeded with the previously adopted standard level estimated markup across all ELs—which is EL 0 in Table III.11. For pumps not currently subject to standards, DOE assumed that BB pumps and ESFM pumps, ST and VT pumps, and IL and SVIL pumps have respectively similar markups. DOE did not include RSV pumps due to a lack of available data.

Initial financial parameters, estimates of product markups and conversion costs (discussed in III.C.2 of this document), shipment estimates (discussed in III.C.3.b of this document), and the MPC estimates—adjusted for inflation from the January 2016 Final Rule—form the primary inputs for the Government Regulatory Impact Model (''GRIM'') that DOE uses to assess impacts of industry and industry subgroup cashflows. As in the January 2016 Final Rule, the MPC estimates remain the same across efficiency levels. In the tables that follow, DOE compares the GRIM results for each evaluated EL against the results for the no-new-standards case, in which energy conservation standards are not established or amended. In this preliminary GRIM, consistent with the NES, DOE only considers efficiency levels that can be accomplished by hydraulic redesign—corresponding to EL 1 to EL 3 for currently in-scope pumps and EL 1 to EL 5 for pumps that are not currently subject to standards. Results examine a single markup scenario where manufacturers are assumed to preserve the same gross margin percentage in the standards cases as in the no-new-standards case. Table III.18 presents the results for the entire scope considered in this NODA, whereas Table III.19 and Table III.20 present results for pumps not currently, and currently, subject to standards, respectively. These results are similar to the flat markup scenario results presented in the January 2016 Final Rule, which are included in Table III.21.

Further details on the manufacturer impact analysis are included in chapter 6 of the TSD accompanying this NODA.

[17] *See www.congress.gov/115/bills/hr1/BILLS-115hr1enr.pdf.*

[18] The tax rate used in the 2016 Final Rule was 32 percent.

TABLE III.18—PRELIMINARY MANUFACTURER IMPACT ANALYSIS FOR PUMPS NOT CURRENTLY, AND CURRENTLY, SUBJECT TO STANDARDS—PRESERVATION OF GROSS MARGIN PERCENTAGE MARKUP SCENARIO

	Units	No-new-standards case	Trial standard level				
			1	2	3	4	5
INPV	*2020$ MM*	237.5	144.92	(44.1)	(283.1)	(910.8)	(961.9)
Change in INPV	*2020$ MM*		(92.6)	(281.6)	(520.6)	(1,148.2)	(1,199.3)
	%		(39.0)	(118.6)	(219.2)	(483.5)	(505.1)
Product Conversion Costs	*2020$ MM*		126.9	360.3	654.23	687.3	740.2
Capital Conversion Costs	*2020$ MM*		57.7	164.0	297.6	315.4	342.8
Total Investment Required	*2020$ MM*		184.6	524.2	951.8	1,002.7	1,083.0

* Values in parenthesis indicate negative numbers.

TABLE III.19—PRELIMINARY MANUFACTURER IMPACT ANALYSIS FOR PUMPS CURRENTLY SUBJECT TO STANDARDS—PRESERVATION OF GROSS MARGIN PERCENTAGE MARKUP SCENARIO

	Units	No-new-standards case	Trial standard level		
			1	2	3
INPV	*2021$ MM*	211.2	123.4	(51.5)	(274.1)
Change in INPV	*2021$ MM*		(87.8)	(262.7)	(485.3)
	%		(41.6)	(124.1)	(229.8)
Product Conversion Costs	*2021$ MM*		120.3	336.9	611.7
Capital Conversion Costs	*2021$ MM*		54.1	151.3	274.8
Total Investment Required	*2021$ MM*		174.4	488.2	886.5

* Values in parenthesis indicate negative numbers.
** EL 3, arrived at in TSL 3, represents max-tech for pumps currently subject to standards.

TABLE III.20— PRELIMINARY MANUFACTURER IMPACT ANALYSIS FOR PUMPS NOT CURRENTLY SUBJECT TO STANDARDS—PRESERVATION OF GROSS MARGIN PERCENTAGE MARKUP SCENARIO

	Units	No-new-standards case	Trial standard level				
			1	2	3	4	5
INPV	*2021$ MM*	26.28	21.35	7.4	(9.0)	(37.4)	(88.5)
Change in INPV	*2021$ MM*		(4.9)	(18.9)	(35.3)	(63.7)	(114.8)
	%		(18.8)	(71.8)	(134.1)	(242.3)	(436.9)
Product Conversion Costs	*2021$ MM*		6.5	23.4	42.5	75.6	128.5
Capital Conversion Costs	*2021$ MM*		3.7	12.6	22.8	40.6	68.0
Total Investment Required	*2021$ MM*		10.2	36.0	65.3	116.2	196.5

* Values in parenthesis indicate negative numbers.

TABLE III.21—2016 FINAL RULE MANUFACTURER IMPACT ANALYSIS—FLAT MARKUP SCENARIO

[Equivalent to preservation of gross margin scenario]

	Units	No-new-standards case	Trial standard level (old rulemaking)				
			1	2	3	4	5
INPV	*2014$ MM*	120.0	110.3	80.5	20.9	(86.1)	(229.0)
Change in INPV	*2014$ MM*		(9.7)	(39.5)	(99.1)	(206.1)	(349.0)
	%		(8.1)	(32.9)	(82.6)	(171.8)	(290.9)
Product Conversion Costs	*2014$ MM*		16.6	56.9	123.1	234.0	380.8
Capital Conversion Costs	*2014$ MM*		6.2	24.3	54.0	103.9	169.8
Total Investment Required	*2014$ MM*		22.8	81.2	177.2	337.9	550.6

* Values in parenthesis indicate negative numbers.
** TSL 2 represents the adopted standard level.

Issue 32: DOE requests comment on the financial parameters used, the product markups used, whether DOE's assumption that markups do not or will not (in the case of standards being applied) change across efficiency levels, the conversion costs used, what—if any—additional markup scenarios should be considered, and the estimated industry impacts presented in this analysis.

a. Small Business Impacts

Throughout the rulemaking process, DOE will examine the impacts of potential energy conservation standards on small business manufacturers and how those impacts may be different or disproportionate to the industry as a whole. Further details on the small business industry subgroup analysis are included in chapter 6 of the TSD accompanying this NODA.

Issue 33: DOE requests comment on whether and how small businesses may be disproportionately affected by amended energy conservation standards.

IV. Public Participation

A. Submission of Comments

DOE will accept comments, data, and information regarding this NODA before or after the public meeting, but no later than the date provided in the **DATES** section at the beginning of this document. Interested parties may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

Submitting comments via *www.regulations.gov.* The *www.regulations.gov* web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment itself or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Otherwise, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

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DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery/courier, or postal mail. Comments and documents submitted via email, hand delivery/courier, or postal mail also will be posted to *www.regulations.gov.* If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via postal mail or hand delivery/courier, please provide all items on a CD, if feasible, in which case it is not necessary to submit printed copies. No telefacsimiles (''faxes'') will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, that are written in English, and that are free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked ''confidential'' including all the information believed to be confidential, and one copy of the document marked ''non-confidential'' with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

B. Issues on Which DOE Seeks Comment

Issue 1: DOE seeks individual model level data or industry aggregated data to update its shipment and average horsepower estimate for pump categories that are currently subject to standards and those pump categories that are currently not subject to standards.

Issue 2: DOE requests comments on potential benefits or drawbacks of proposing a change to the test procedure to allow calculation of PEI for pumps not subject to energy conservation standards.

Issue 3: DOE requests comment on the percentage of basic models that would be impacted by the following factors if manufacturers were to redesign their pumps to EL 4 and EL 5 (as presented in the January 2016 Final Rule): (1) need to flatten the pump curve beyond potentially acceptable levels for the existing market for a given model or any reported issues with controllability; (2) increased warranty claims; and (3) increased MPCs for pumps redesigned to higher efficiencies. Additionally, DOE requests comment on which EL (as presented in the January 2016 Final Rule) and for which pump classes (or hp ranges) these issues would first appear.

Issue 4: DOE also seeks comment on the availability of designers skilled enough to design a pump that can reach EL 4 and EL 5 and be readily manufactured.

Issue 5: Additionally, DOE requests comment on any other issues that may prevent manufacturers from redesigning pumps to reach higher efficiency levels, including other utility issues.

Issue 6: DOE requests comment on the fraction of installations in which consumers would have to make piping changes as a result of a change in flange position (as opposed to purchasing another model with the desired flange

positions), and the cost of such piping changes.

Issue 7: DOE requests comment on how a standard that requires an advanced motor to be paired with a bare pump would impact: (1) the bare pump replacement market; (2) the distributor market and business model; (3) the repair of pumps rather than their replacement and (4) the replacement of failed motors with less efficient motors. DOE also requests feedback on any potential consistency concerns with a standard that requires an advanced motor to be paired with a bare pump and current or future energy conservation standards for electric motors.

Issue 8: DOE seeks comment on the frequency with which pump consumers specify only a single controller brand, as well as on the number of controller brands typically stocked by a pump manufacturer.

Issue 9: DOE seeks comment on how a VSD requirement for pumps would impact distributors.

Issue 10: DOE requests comment on whether there would be sufficient quantity and quality of VSDs available if there were a VSD requirement for pumps.

Issue 11: DOE seeks comment on possible methods to retain a replacement market for bare pumps while preventing a loophole where bare pumps could be purchased for current and new installations.

Issue 12: DOE seeks comment on the frequency with which customers would replace an inverter-only motor and control with an induction motor upon the end of the lifetime of the motor originally purchased with the pump.

Issue 13: DOE seeks comment on how bare pump repair frequency may change if customers delay purchasing a more expensive pump with motor and controls. For example, in its DPPP motors analysis, DOE assumed that in the standards case, a greater percentage of consumers would repair their pump as compared to the no-new-standards case.

Issue 14: DOE seeks comment on the percentage of pump models that would be redesigned for controls if they were required to be sold with them, and of those, what percentage would have worse efficiency in constant-load applications than the current pump model, and by how much the efficiency or energy use would be impacted.

Issue 15: DOE seeks comment on the frequency with which customers who would be required to buy a pump with a VSD would need to add filters or perform electrical upgrades, and the estimated cost of such equipment and installation.

Issue 16: DOE seeks comment on the frequency with which customers might need to re-pipe to accommodate a pump with motor and controls rather than a drop-in replacement pump, and the estimated cost of re-piping.

Issue 17: DOE seeks quantitative data on the overall installation costs of pumps with VSDs compared to bare pumps, as well as any differences in lifetime or repair and maintenance costs for pumps sold with VSDs as compared to bare pumps.

Issue 18: DOE requests comment on if or how the five screening criteria may limit application of hydraulic redesign, advanced motors, or VSDs as design options in the current rulemaking analysis.

2. Engineering

Issue 19: If DOE's assumptions are not appropriate, DOE requests updated shipments and performance data for BB, SVIL, RSH, and VT pumps. DOE also requests updated shipments and performance data for pumps sold at a specific speed of 1,200 rpm and for ST pumps with a bowl diameter greater than 6 inches.

Issue 20: DOE seeks comment on the likelihood of equipment class switching or other unintended consequences if DOE were to set a higher standard for VL equipment classes.

Issue 21: DOE requests comment on specific applications for which SVILs could be used instead of circulators and how an SVIL would need to be modified for use in these applications.

Issue 22: DOE requests comment on the portion of the SVIL market whose bare pumps are already subject to DOE's IL pump standards. Specifically, what portion of SVIL bare pumps are a different pole version of IL pumps, and what portion of SVIL pumps are a separate product family?

Issue 23: DOE requests comment on the potential benefits and drawbacks of setting standards for SVILs that align with circulator pumps versus setting standards for SVILs that align with IL pumps.

Issue 24: DOE requests shipment and performance data for (1) pumps with a nominal speed of rotation at 1,200 rpm; (2) RSH pumps; and (3) ST pumps with bowl diameters greater than 6 inches.

Issue 25: DOE requests comment on its conversion cost approach for evaluating hydraulic redesign.

Issue 26: DOE requests comment on its approach for evaluating pump efficiency and costs with the addition of advanced motors and/or VSDs for pumps larger than 1 hp.

Issue 27: DOE requests comment on its approach for evaluating pump efficiency and costs with the addition of advanced motors and/or VSDs for SVILs.

Issue 28: DOE requests comment on the accuracy of the manufacturer markups presented in Table III.11.

Issue 29: DOE seeks model level performance data for all pumps not currently subject to standards as well as RSV pumps.

Issue 30: DOE seeks comment on the total shipments of pump categories not currently subject to standards as well as RSV pumps.

Issue 31: DOE requests comment on the applicability of load profiles found in the NEEA data to the full sample of pumps in this analysis.

Issue 32: DOE requests comment on the financial parameters used, the product markups used, whether DOE's assumption that markups do not or will not (in the case of standards being applied) change across efficiency levels, the conversion costs used, what—if any—additional markup scenarios should be considered, and the estimated industry impacts presented in this analysis.

Issue 33: DOE requests comment on whether and how small businesses may be disproportionately affected by amended energy conservation standards.

V. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notification of data availability.

Signing Authority

This document of the Department of Energy was signed on August 3, 2022, by Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on August 4, 2022.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

[FR Doc. 2022–17074 Filed 8–10–22; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0881; Project Identifier MCAI–2022–00424–R]

RIN 2120–AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Airbus Helicopters (Airbus) Model SA330J helicopters. This proposed AD was prompted by a report of restricted movement of the collective lever caused by incidental contact of the secondary stop cover due to a loosened rivet. This proposed AD would require removing the plate of the collective lever secondary stop and replacing it with self-adhesive tape to cover the stop support and decrease the risk of resistance on the rotor flight controls, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by September 26, 2022.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* (202) 493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For EASA material that is proposed for IBR in this NPRM, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu.* You may find the EASA material on the EASA website at *https://ad.easa.europa.eu.* For Airbus service information identified in this NPRM, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641–0000 or (800) 232–0323; fax (972) 641–3775; or at *www.airbus.com/helicopters/services/technical-support.html.* The EASA material is also available at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0881.

Examining the AD Docket

You may examine the AD docket at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0881; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Kristi Bradley, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222–5110; email *kristin.bradley@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include ''Docket No. FAA–2022–0881; Project Identifier MCAI–2022–00424–R'' at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *www.regulations.gov,* including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Kristi Bradley, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222–5110; email *kristin.bradley@faa.gov.* Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2022–0056, dated March 24, 2022 (EASA AD 2022–0056), to correct an unsafe condition for all serial-numbered Airbus (Eurocopter, Eurocopter France, Aérospatiale, and Sud Aviation) Model SA 330 J helicopters, except those having Airbus modification (mod) 07 27362 embodied in production.

This proposed AD was prompted by a report of restricted movement of the collective lever during take-off. After an investigation, it was determined that the movement of the collective lever was restricted due to simultaneous movement of the collective secondary stop cover due to a loosened rivet. This investigation also determined that the loosened rivet securing the covering plate had come into contact with the collective flying control fulcrum, leading to the restricted movement of the collective lever. The FAA is proposing this AD to address the restricted movement of the collective lever. This unsafe condition, if not addressed, could result in reduced control of the helicopter, potentially resulting in damage to the helicopter and injury to occupants. See EASA AD

2022–0056 for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2022–0056 requires modification of the helicopter by removing and replacing the covering plate of the collective lever secondary stop with self-adhesive tape to decrease the risk of resistance on the rotor flight controls.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Other Related Service Information

The FAA reviewed Airbus Alert Service Bulletin No. SA330–67.27, Revision 0, dated February 2, 2022, for Model SA330J helicopters. This service information specifies modification procedures for removal of the covering plate and installation of the self-adhesive tape.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of these same type designs.

Proposed AD Requirements in This NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2022–0056, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022–0056 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022–0056 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2022–0056 does not mean that operators need comply only with that section. For example, where the AD requirement refers to ''all required actions and compliance times,'' compliance with this AD requirement is not limited to the section titled ''Required Action(s) and Compliance Time(s)'' in EASA AD 2022–0056. Service information referenced in EASA AD 2022–0056 for compliance will be available at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0881 after the FAA final rule is published.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 14 helicopters of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Removing the covering plate of the collective lever secondary stop and replacing it with self-adhesive tape would take about 1 work-hour and parts would cost up to $100 for an estimated cost of up to $185 per helicopter and $2,590 for the U.S. Fleet.

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.

The FAA is 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

The FAA 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) Would not affect intrastate aviation in Alaska, and

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

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 airworthiness directive:

Airbus Helicopters: Docket No. FAA–2022–0881; Project Identifier MCAI–2022–00424–R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by September 26, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Helicopters Model SA330J helicopters, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2022–0056, dated March 24, 2022 (EASA AD 2022–0056).

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6700, Rotorcraft Flight Control.

(e) Unsafe Condition

This AD was prompted by a report of restricted movement of the collective lever caused by incidental contact of the secondary stop cover due to a loosened rivet. The FAA is issuing this AD to address the restricted movement of the collective lever. The unsafe condition, if not addressed, could result in reduced control of the helicopter, potentially

resulting in damage to the helicopter and injury to occupants.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2022–0056.

(h) Exceptions to EASA AD 2022–0056

(1) Where EASA AD 2022–0056 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2022–0056 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where the service information referenced in EASA AD 2022–0056 specifies discarding parts, this AD requires removing those parts from service.

(4) This AD does not mandate compliance with the ''Remarks'' section of EASA AD 2022–0056.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022–0056 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: *9-AVS-AIR-730-AMOC@faa.gov.*

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For EASA AD 2022–0056, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu*; internet *www.easa.europa.eu.* You may find the EASA material on the EASA website at *https://ad.easa.europa.eu.* You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N–321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222–5110. This material may be found in the AD docket at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0881.

(2) For more information about this AD, contact Kristi Bradley, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222–5110; email *kristin.bradley@faa.gov.*

Issued on July 20, 2022.

Gaetano A. Sciortino,

Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–16887 Filed 8–10–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0991; Project Identifier AD–2022–00155–T]

RIN 2120–AA64

Airworthiness Directives; Learjet, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Learjet, Inc., Model 45 airplanes. This proposed AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. This proposed AD would require revising the existing inspection program to incorporate reduced inspection intervals for the anti-ice manifold assembly. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by September 26, 2022.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209–2942; telephone 316–946–2000; fax 316–946–2220; email *ac.ict@aero.bombardier.com*; internet *www.bombardier.com.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

Examining the AD Docket

You may examine the AD docket at *www.regulations.gov* by searching for and locating Docket No. FAA–2022–0991; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Adam Hein, Aerospace Engineer, Mechanical Systems and Propulsion Section, FAA, Wichita ACO Branch, 1801 S Airport Road, Wichita, KS 67209; telephone (316) 946–4116; email: *adam.hein@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include ''Docket No. FAA–2022–0991; Project Identifier AD–2022–00155–T'' at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *www.regulations.gov,* including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as

private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Adam Hein, Aerospace Engineer, Mechanical Systems and Propulsion Section, FAA, Wichita ACO Branch, 1801 S Airport Road, Wichita, KS 67209; telephone (316) 946–4116; email: *adam.hein@faa.gov.* Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2001–03–05, Amendment 39–12109 (66 FR 10353, February 15, 2001) (AD 2001–03–05), for certain Learjet Model 45 airplanes. AD 2001–03–05 requires, among other actions, revising the existing Learjet 45 maintenance program to incorporate additional inspections and maintenance practices for the anti-ice manifold assembly. AD 2001–03–05 resulted from anti-ice system difficulties on a Learjet Model 45 airplane, generating a warning to the flightcrew of an overheat condition of the horizontal stabilizer. The FAA issued AD 2001–03–05 to address metal fragments breaking off the anti-ice manifold assembly due to fatigue, which could block a duct in the anti-ice system and result in an unannunciated loss of ice protection.

AD 2001–03–05 mandates a 600-hour repetitive inspection interval of an earlier design/part number of the anti-ice manifold as specified in the Learjet 45 maintenance program revision. The part was subsequently redesigned outside the scope of AD 2001–03–05, and the inspection interval for airplanes with the redesigned part was extended to 1,200 flight hours by Learjet.

Since the FAA issued AD 2001–03–05, the design approval holder determined that the design improvements made to the anti-ice manifold assembly did not fully address the original issue of vane cracking, so the 1,200-hour inspection on the redesigned part is insufficient. However, the FAA determined that a repetitive inspection interval of 600 flight hours is sufficient to address the unsafe condition. Therefore, this proposed AD would require revising the existing inspection program to incorporate a reduced 600-hour inspection interval for the redesigned part. Accomplishing the proposed actions would terminate the requirements of paragraph (c) of AD 2001–03–05.

The FAA is proposing this AD to address metal fragments breaking off the anti-ice manifold assembly due to fatigue, which could block a duct in the anti-ice system and result in an unannunciated loss of ice protection and subsequent loss of control of the airplane.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Learjet 40 Maintenance Manual Temporary Revision (TR) 04–33 and Learjet 45 Maintenance Manual TR 04–48, both dated January 18, 2022. This service information specifies reduced inspection intervals for the anti-ice manifold assembly.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

Proposed AD Requirements in This NPRM

This proposed AD would require revising the existing inspection program to incorporate reduced inspection intervals for the anti-ice manifold assembly.

This proposed AD would require revisions to certain operator maintenance documents to include new actions (*e.g.,* inspections). Compliance with these actions is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (k) of this proposed AD.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 443 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection program revision	1 work-hour × $85 per hour = $85	$0	$85	$37,655

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.

The FAA is 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

The FAA 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) Would not affect intrastate aviation in Alaska, and

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

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 airworthiness directive:

Learjet, Inc.: Docket No. FAA–2022–0991; Project Identifier AD–2022–00155–T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by September 26, 2022.

(b) Affected ADs

This AD affects AD 2001–03–05, Amendment 39–12109 (66 FR 10353, February 15, 2001) (AD 2001–03–05).

(c) Applicability

This AD applies to all Learjet, Inc., Model 45 (Learjet 40), Model 45 (Learjet 45), Model 45 (Learjet 70), and Model 45 (Learjet 75) airplanes, serial numbers 45–002 through 45–556 inclusive, and 45–2001 through 45–2146 inclusive, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 36, Pneumatic.

(e) Unsafe Condition

This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address metal fragments breaking off the anti-ice manifold assembly due to fatigue, which could block a duct in the anti-ice system and result in an unannunciated loss of ice protection and subsequent loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Maintenance or Inspection Program Revision

(1) For Learjet 40 and 45 variants: Within 60 days after the effective date of this AD, revise the existing inspection program by incorporating the information in Learjet 40 Maintenance Manual Temporary Revision (TR) 04–33 or Learjet 45 Maintenance Manual TR 04–48, both dated January 18, 2022, as applicable. The initial compliance time for the inspection is at the applicable time specified in paragraph (g)(1)(i) or (ii) of this AD.

(i) For airplanes with more than 600 flight hours since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 100 flight hours or 60 days after the effective date of this AD, whichever occurs first.

(ii) For airplanes with 600 flight hours or less since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 600 flight hours after the most recent inspection or within 100 flight hours after the effective date of this AD, whichever occurs later.

(2) For Learjet 70 and 75 variants: Within 60 days after the effective date of this AD, revise the existing inspection program to incorporate the information identified in figure 1 to paragraph (g)(2) of this AD. The initial compliance time for the inspection is at the applicable time specified in paragraph (g)(2)(i) or (ii) of this AD.

Figure 1 to paragraph (g)(2) – *Anti-Ice Inspection Tasks*

IRN number	Task Description	Task interval	Model/Serial Effectivity
3010006	** Anti-ice Manifold - Perform Borescope Inspection	600 flight hours (T)	Learjet 70/75: 45-0368, 45-0446 45-0456 through 45-2000, 45-2129, 45-2134 through 45-4000

(i) For airplanes with more than 600 flight hours since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 100 flight hours or 60 days after the effective date of this AD, whichever occurs first.

(ii) For airplanes with 600 flight hours or less since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 600 flight hours after the most recent inspection or within 100 flight hours after the effective date of this AD, whichever occurs later.

(h) No Alternative Actions or Intervals

After the existing inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (*e.g.,* inspections) or intervals, may be used unless the actions and intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

(i) Terminating Action for Paragraph (c) of AD 2001–03–05

Accomplishing the revision of the existing inspection program required by paragraph (g) of this AD terminates the requirements of paragraph (c) of AD 2001–03–05.

(j) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the airplane to a location where the airplane can be inspected, provided the airplane is restricted from flying into known icing conditions.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(l) Related Information

(1) For more information about this AD, contact Adam Hein, Aerospace Engineer,

Mechanical Systems and Propulsion Section, FAA, Wichita ACO Branch, 1801 S Airport Road, Wichita, KS 67209; telephone (316) 946–4116; email: *adam.hein@faa.gov.*

(2) For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209–2942; telephone 316–946–2000; fax 316–946–2220; email *ac.ict@aero.bombardier.com*; internet *www.bombardier.com.* You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

Issued on July 29, 2022.

Christina Underwood,

Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–16680 Filed 8–10–22; 8:45 am]

BILLING CODE 4910–13–P

COMMODITY FUTURES TRADING COMMISSION

17 CFR Part 39

RIN 3038–AF15

Governance Requirements for Derivatives Clearing Organizations

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Commodity Futures Trading Commission (CFTC or Commission) is proposing amendments to require derivatives clearing organizations (DCOs) to establish and consult with one or more risk management committees (RMCs) comprised of clearing members and customers of clearing members on matters that could materially affect the risk profile of the DCO. In addition, the Commission proposes establishing minimum requirements for RMC composition and rotation, and requiring DCOs to establish and enforce fitness standards for RMC members. The Commission also proposes requiring DCOs to maintain written policies and procedures governing the RMC consultation process and the role of RMC members. Finally, the Commission is proposing to require DCOs to establish one or more market participant risk advisory working groups (RWGs) that must convene at least quarterly, and adopt written policies and procedures related to the formation and role of the RWG.

DATES: Comments must be received by October 11, 2022.

ADDRESSES: You may submit comments, identified by ''Governance Requirements for Derivatives Clearing Organizations'' and RIN number 3038–AF15, by any of the following methods:

- *CFTC Comments Portal: https://comments.cftc.gov.* Select the ''Submit Comments'' link for this rulemaking and follow the instructions on the Public Comment Form.
- *Mail:* Send to Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581.
- *Hand Delivery/Courier:* Follow the same instructions as for Mail, above.

Please submit your comments using only one of these methods. To avoid possible delays with mail or in-person deliveries, submissions through the CFTC Comments Portal are encouraged.

All comments must be submitted in English, or if not, accompanied by an English translation. Comments will be posted as received to *https://comments.cftc.gov.* You should submit only information that you wish to make available publicly. If you wish the Commission to consider information that you believe is exempt from disclosure under the Freedom of Information Act (FOIA), a petition for confidential treatment of the exempt information may be submitted according to the procedures established in § 145.9 of the Commission's regulations.[1]

The Commission reserves the right, but shall have no obligation, to review, pre-screen, filter, redact, refuse or remove any or all of your submission from *https://comments.cftc.gov* that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been redacted or removed that contain comments on the merits of the rulemaking will be retained in the public comment file and will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under the FOIA.

FOR FURTHER INFORMATION CONTACT: Eileen A. Donovan, Deputy Director, 202–418–5096, *edonovan@cftc.gov;* Division of Clearing and Risk, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581; Theodore Z. Polley III, Associate Director, (312) 596–0551, *tpolley@cftc.gov;* or Joe Opron, Special Counsel, (312) 596–0653, *jopron@cftc.gov;* Division of Clearing and Risk, Commodity Futures Trading Commission, 77 West Jackson Boulevard, Suite 800, Chicago, Illinois 60604.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background
II. Proposed Amendments to § 39.24(b)
III. Proposed Amendments to § 39.24(c)
IV. Request for Comments
V. Related Matters
A. Regulatory Flexibility Act
B. Paperwork Reduction Act
C. Cost-Benefit Considerations
D. Antitrust Considerations

I. Background

The Market Risk Advisory Committee (MRAC) is a discretionary advisory committee established by the authority of the Commission in accordance with the Federal Advisory Committee Act, as amended.[2] The MRAC advises the Commission on matters related to evolving market structures and movement of risk across clearinghouses, exchanges, intermediaries, market makers and end-users.[3] MRAC subcommittees are organized by topic to produce reports and recommendations to the full MRAC that, if approved, are submitted to the Commission for its consideration.

On February 23, 2021, the MRAC approved a report from its Central Counterparty (CCP) Risk and Governance Subcommittee (Subcommittee) that provided several recommendations on DCO risk governance.[4] For each topic considered in the report, the (1) DCOs and (2) clearing members and end-users (CM/EU) represented on the Subcommittee each provided separate recommendations, and in some instances proposed rule text. On some topics, the two groups reached a general agreement on how DCO governance might be improved, but there were also areas of disagreement.

The Commission is proposing several amendments to § 39.24 that are consistent with the Subcommittee's recommendations to enhance the Commission's DCO governance standards. First, the Commission proposes to require each DCO to establish and consult with one or more RMCs comprised of clearing members

[1] 17 CFR 145.9. Commission regulations referred to in this release are found at 17 CFR chapter I (2020), and are accessible on the Commission's website at *https://www.cftc.gov/LawRegulation/CommodityExchangeAct/index.htm.*

[2] 5 U.S.C. App. 2.

[3] *See* Market Risk Advisory Committee, *available at https://www.cftc.gov/About/Advisory Committees/MRAC.*

[4] MRAC CCP Risk and Governance Subcommittee, Recommendations on CCP Governance and Summary of Subcommittee Constituent Perspectives, available at *https://www.cftc.gov/media/6201/MRAC_CCPRGS_RCCOG022321/download (Feb. 23, 2021).*

and customers of clearing members prior to making decisions that could materially affect the risk profile of the DCO, and proposes requirements related to the composition and activities of RMCs. Second, the Commission proposes to require each DCO to establish one or more RWGs in order to seek risk-based input (as opposed to commercially-driven input) from a broader array of market participants. The Commission also requests comment below on several other topics discussed in the Subcommittee report on which the DCO and CM/EU members of the Subcommittee did not reach clear agreement.

II. Proposed Amendments to § 39.24(b)

Section 5b(c)(2) of the Commodity Exchange Act (CEA) sets forth core principles with which a DCO must comply in order to be registered and to maintain registration as a DCO (DCO Core Principles),[5] and part 39 of the Commission's regulations implement the DCO Core Principles. DCO Core Principle O requires a DCO to establish governance arrangements that are transparent, fulfill public interest requirements, and permit the consideration of the views of owners and participants.[6] Paragraphs (a) and (b) of § 39.24 implement this aspect of Core Principle O by providing minimum requirements regarding the substance and form of a DCO's governance arrangements. The Commission proposes to enhance these requirements by requiring a DCO to: (1) establish and consult with one or more RMCs on matters that could materially affect the risk profile of the DCO; (2) appoint clearing members and customers of clearing members to the RMC; (3) rotate RMC membership on a regular basis; (4) establish one or more RWGs; and (5) establish written policies and procedures regarding the RMC consultation process and the formation and role of each RWG.

A. Establishment and Consultation of RMC—§ 39.24(b)(11)

Commission regulations require a DCO to consider the views of clearing members and customers of clearing members as part of the DCO's governance process. Most notably, § 39.24(a)(1)(iv) requires a DCO to have governance arrangements that support the relevant public interest considerations of clearing members, customers of clearing members, and other relevant stakeholders. Regulation 39.24(a)(2) requires a DCO's board of directors to make certain that the DCO's design, rules, overall strategy, and major decisions appropriately reflect the legitimate interests of clearing members, customers of clearing members, and other relevant stakeholders.

While not required by Commission regulations, many DCOs have addressed the above requirements by establishing advisory RMCs comprised of clearing members that provide expert opinion on key risk management issues.[7] Codifying this best practice furthers the purpose of Core Principle O by providing a consistent, formalized process across all DCOs to solicit, consider, and address input from clearing members and end-users before making decisions that could materially affect the risk profile of the DCO. Moreover, while serving on an RMC, clearing members and end-users would be able to use their risk management expertise to promote the safety and efficiency of the DCO and foster the stability of the broader financial markets. Finally, codifying a market participant consultation requirement formally enhances the role of market participants in the DCO risk governance process across DCOs.

Therefore, the Commission is proposing new § 39.24(b)(11), which would require a DCO to maintain governance arrangements that establish one or more RMCs,[8] and require a DCO's board of directors to consult with, and consider and respond to input from, its RMC(s) on all matters that could materially affect the risk profile of the DCO.[9] While the Commission is not proposing to prescribe exactly how a board of directors should respond to RMC input, the board of directors must respond to the substance of the input it receives rather than merely acknowledging that the input was received. Proposed § 39.24(b)(11) would identify a non-exhaustive list of matters that could materially affect the risk profile of the DCO, including any material change to the DCO's margin model, default procedures, participation requirements, and risk monitoring practices, as well as the clearing of new products.

Clearing members have a significant interest in the clearing of new products, especially at DCOs with mutualized default funds. The fact that new products typically have low open interest upon launch does not prevent them from potentially materially affecting the risk profile of the DCO. When determining whether a new product could materially affect its risk profile, a DCO should consider the product's potential impact as the product matures, and not only at the onset of trading, when risks may be less pronounced.

The Commission requests comment on whether a DCO's proposal to clear a new product should be categorically treated as a matter that could materially affect the DCO's risk profile for purposes of the proposed RMC consultation requirement given the heightened potential for novel and complex risks associated with clearing new products. If so, should the Commission define what constitutes a new product for this purpose, and how should it do so? For example, should the Commission define new products to include those that have margining, liquidity, default management, pricing, or other risk characteristics that differ from those currently cleared by the DCO? In the alternative, should the Commission require DCOs to adopt policies defining what constitutes a new product?

Finally, for the avoidance of doubt, the Commission notes that while it believes that codifying an RMC consultation requirement will significantly enhance overall DCO risk management, a DCO's board of directors has the ultimate responsibility to make major decisions with respect to the DCO.[10]

B. Policies and Procedures Governing RMC Consultation—§ 39.24(b)(11)(i)

The Commission is proposing new § 39.24(b)(11)(i), which would require a DCO to maintain written policies and procedures to make certain that the RMC consultation process is described in detail, and includes requirements for the DCO to document the board's consideration of and response to RMC input. The Commission believes that explicitly requiring DCOs to develop and maintain policies and procedures

[5] 7 U.S.C. 7a–1.

[6] *See* 7 U.S.C. 7a–1(c)(2)(O)(i).

[7] *See, e.g.,* Chicago Mercantile Exchange, Inc., Clearing House Risk Committee Charter, accessed on February 3, 2022, *available at http://investor.cmegroup.com/static-files/7445789a-8aaa-46ec-8539-069e8cbf0fab;* ICE Clear Credit Regulation and Governance, Fact Sheet, accessed February 3, 2022, *available at https://www.theice.com/publicdocs/clear_credit/ICE_Clear_Credit_Regulation_and_Governance.pdf.*

[8] The Commission notes that some DCOs maintain separate RMCs for each product type that they clear. For example, Chicago Mercantile Exchange, Inc.'s (CME) Clearing House Risk Committee oversees primarily futures and options products, and its Interest Rate Swaps Risk Committee oversees interest rate swaps products. *See* CME, Governance, accessed on February 3, 2022, *available at https://www.cmegroup.com/education/articles-and-reports/governance.html.*

[9] RMCs are mentioned in existing Commission regulations (*see, e.g.,* § 39.24((b)(7)) given that many DCOs already use them, but current regulations do not explicitly require a DCO to establish an RMC or prescribe the nature of its role.

[10] *See* 17 CFR 39.24(a)(2) through (3).

governing DCO consultation with its RMC(s), and to document the activities of its RMC(s), will promote transparency, accountability, and predictability, and facilitate effective oversight by the Commission in this area. The Commission requests comment on whether DCOs should be required to create and maintain minutes or other documentation of RMC meetings.

C. Representation of Clearing Members and Customers on RMC—§ 39.24(b)(11)(ii)

As discussed above, Core Principle O and § 39.24 require DCOs to consider the views and legitimate interests of clearing members and customers of clearing members in their decision-making process. This principle is rooted in the need to ensure that these parties have an opportunity to express their concerns, and in recognition of the stake that clearing members and their customers have in the financial integrity of the DCO, as well as the fact that DCOs benefit from their unique perspective and expertise on risk management issues. Accordingly, the Commission is proposing new § 39.24(b)(11)(ii), which would require a DCO to maintain policies to make certain that an RMC includes representatives from clearing members and customers of clearing members.

With respect to RMC composition, the Commission proposes to adopt the Subcommittee's recommendation that an RMC include ''representatives'' from both clearing members and customers of clearing members. The Commission believes that requiring more than one clearing member and more than one customer of a clearing member ensures a minimum level of market participant participation on RMCs while providing DCOs with appropriate flexibility to account for differences among DCOs in terms of size, business models, resources, and governance structure. However, the Commission requests comment on whether it should adopt additional specific composition requirements, and if so, what those requirements should be.

D. Rotation of RMC Membership—§ 39.24(b)(11)(iii)

The Commission believes that requiring DCOs to regularly rotate their RMC membership will promote the ability of clearing members and customers of clearing members from a broad array of market segments to provide their expertise, and will ensure that the RMC provides the DCO with fresh perspectives on risk management matters. Accordingly, the Commission is proposing new § 39.24(b)(11)(iii), which would require a DCO to maintain policies to make certain that membership of an RMC is rotated on a regular basis. The Commission requests comment on whether it should set a minimum frequency for RMC membership rotation, what are the advantages and disadvantages of doing so, and, if it does, what that frequency should be.

E. Establishment of RWG To Obtain Input—§ 39.24(b)(12)

As noted above, the Commission's proposal to require a DCO to establish and consult with an RMC that includes clearing member and customer representatives who are rotated on a regular basis would further implement the Core Principle O requirement that a DCO establish governance arrangements that permit the consideration of the views of owners and participants. However, the Commission recognizes that practical considerations, most notably the size of a typical RMC and the significant time commitment that an RMC would require of its members, will limit the number of representatives that can serve on a DCO's RMC at any given time. Many DCOs have dozens of clearing members, each of which can have a large number of customers. Moreover, as proposed, an RMC's duties would involve formal consultation with a DCO's board of directors on all matters that could materially affect the risk profile of the DCO. Thus, RMC membership may constitute a significant time commitment. As an advisory working group, an RWG would require a smaller time commitment from its participants. Therefore, in order to further expand and diversify the information available to a DCO while making material risk decisions, and to expand opportunities for those with a stake in DCO risk management to provide input, the Commission is proposing new § 39.24(b)(12) to require a DCO to establish one or more RWGs, and to maintain policies and procedures regarding the formation and role of each RWG. Having an RWG would allow a DCO to seek risk-based input (as opposed to commercially-driven input) from a broader array of market participants, such that a diverse cross-section of the DCO's clearing members and customers of its clearing members are represented, regarding all matters that could materially affect the risk profile of the DCO. Requiring policies and procedures regarding the role of each RWG will promote transparency, accountability, and predictability and facilitate effective oversight by the Commission. Finally, the Commission proposes to require each RWG to convene at least quarterly, with the goal of ensuring that each RWG is able to discuss and provide input on material risk matters in a timely manner.

The Commission requests comment on whether the proposed requirement that each RWG convene quarterly is the appropriate frequency. The Commission also requests comment on whether it should require DCOs to document the proceedings of RWG meetings, considering both the transparency and accountability benefits of such a requirement and the potential impact of a documentation requirement on free and open dialogue.

III. Proposed Amendments to § 39.24(c)

A. Fitness Standards for RMC Members—§ 39.24(c)(1)

Regulation 39.24(c) implements subsection (ii) of DCO Core Principle O, which requires a DCO to establish and enforce appropriate fitness standards for directors, members of any disciplinary committee, members of the DCO, any other individual or entity with direct access to the settlement or clearing activities of the DCO, and any other party affiliated with any of the foregoing individuals or entities.[11] If a DCO is required to establish and consult with its RMC on all matters that could materially affect the risk profile of the DCO as proposed, the Commission believes a DCO also would need to consider the fitness of individual members for RMC participation, recognizing that fitness standards may vary across DCOs. Therefore, the Commission proposes to amend § 39.24(c) by adding new paragraph (c)(1)(iv) (and renumbering current paragraphs (c)(1)(iv) and (v) accordingly) to require a DCO to establish and enforce appropriate fitness standards for its RMC members.

B. Role of RMC Members as Independent Experts—§ 39.24(c)(3)

As discussed above, the Commission's proposal to require a DCO's board of directors to consult with its RMC(s), comprised of clearing member and customer representatives, is intended to benefit the DCO risk management process by engaging a broad array of backgrounds and expertise. The Commission believes that in order to ensure that RMC members feel empowered to provide objective input during this process, they must be able to serve as independent experts, neither beholden to their employers' particular interests nor acting as fiduciaries of the

[11] *See* 7 U.S.C. 7a–1(c)(2)(O).

DCO. Therefore, the Commission is proposing new § 39.24(c)(3) to require a DCO to maintain policies designed to enable its RMC members to provide independent, expert opinions in the form of risk-based input on all matters presented to the RMC for consideration, and perform their duties in a manner that supports the safety and efficiency of the DCO and the stability of the broader financial system. The Commission requests comment on whether requiring RMC members to act as independent experts, neither beholden to their employers' commercial interests nor acting as fiduciaries of the DCO raises any potential legal issues for those members. Specifically, as a matter of corporate law, would RMC members be forced to contend with competing duties or obligations to the DCO and their employer, including any duties or obligations that would foreclose RMC participation? If so, how may the goal of receiving independent, expert opinions be achieved? Should DCOs be required to have policies specific to RMC members for managing conflicts of interest?

IV. Request for Comment

The Commission generally requests comment on all aspects of the proposed rules. Additionally, the Commission requests comments on the following specific items, which the Commission might address in a future rulemaking:

A. Market Participant Consultation Prior to a Rule Change

Commission regulations require a DCO to include in its rule submissions under §§ 40.5, 40.6, and 40.10 a brief explanation of any substantive opposing views expressed to the DCO by governing board or committee members, members of the DCO, or market participants that were not incorporated into the rule, or a statement that no such opposing views were expressed.[12]

The proposed amendments to § 39.24 would require a DCO's board of directors to consult with its RMC, which must contain representatives from clearing members and customers of clearing members, on all matters that could materially affect the risk profile of the DCO, including matters that would be captured in DCO rule submissions. In addition, a DCO would be required to establish one or more RWGs as a forum to seek risk-based input from a broad array of market participants, such that a diverse cross-section of the DCO's clearing members and customers of clearing members are represented, regarding all matters that could materially affect the risk profile of the DCO.

The Commission requests comment on whether it should also require a DCO to consult with a broad spectrum of market participants prior to submitting any rule change pursuant to §§ 40.5, 40.6, or 40.10. If so, what constitutes a sufficiently broad spectrum of market participants, and how should the DCO engage that group? Should a DCO be required to consult only on those rule changes that could materially affect the DCO's risk profile?

In accomplishing effective consultation, is there value to requiring a DCO to respond to market participant feedback? Specifically, where specific risk-based feedback from market participants has not been incorporated in the DCO's decision, should the DCO be required to respond to market participants informing them of the decision and outlining the rationale behind their action? How could such a requirement be tailored to avoid forcing a DCO to respond to excessively detailed or irrelevant comments?

As noted above, Commission regulations currently require a DCO to provide to the Commission a ''brief explanation of any substantive opposing views.'' Should the Commission further clarify the meaning of ''substantive'' in the context of this requirement? Should a DCO be required to provide the Commission with a report of all opposing views expressed to the DCO? Rather than expecting the DCO to accurately describe opposing views, should the Commission only require a DCO to pass on to the Commission any opposing views expressed to the DCO in writing? Should a DCO be required in its submission to the Commission to respond to opposing views expressed to the DCO? Finally, should the Commission consider additional rules to address a DCO's failure to comply with the full submission requirements of part 40, such as the imposition of an automatic stay?

B. RMC Member Information Sharing With Firm To Obtain Expert Opinions

The Commission believes that the proposed RMC requirements will greatly improve the level of market participant input during the DCO risk governance process for those DCOs that do not currently have an RMC. However, the Commission recognizes that an RMC member's employer may have subject matter experts other than the RMC member who could provide additional expertise that could improve the RMC's ability to make informed recommendations to the DCO. The information provided to a DCO's RMC is often confidential, however, and the value of the enhanced input must be weighed against the increased risk of disclosure in allowing confidential information to be shared outside of the RMC. Moreover, different types of information may require different levels of confidentiality. For example, information concerning prospective changes to aspects of the DCO's risk management framework may have a different level of confidentiality than information concerning an action against a member due to financial responsibility concerns.

The Commission requests comment on whether DCOs should be required to maintain policies and procedures designed to enable an RMC member to share certain types of information it learns in its capacity as an RMC member with fellow employees in order to obtain additional expert opinion. If so, what types of information should be eligible to be shared? What measures should be taken to ensure that confidential information is appropriately protected?

V. Related Matters

A. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) requires that agencies consider whether the regulations they propose will have a significant economic impact on a substantial number of small entities and, if so, provide a regulatory flexibility analysis on the impact.[13] The amendments proposed by the Commission will affect only DCOs. The Commission has previously established certain definitions of ''small entities'' to be used by the Commission in evaluating the impact of its regulations on small entities in accordance with the RFA.[14] The Commission has previously determined that DCOs are not small entities for the purpose of the RFA.[15] Accordingly, the Chairman, on behalf of the Commission, hereby certifies pursuant to 5 U.S.C. 605(b) that the proposed regulations will not have a significant economic impact on a substantial number of small entities.

B. Paperwork Reduction Act

The Paperwork Reduction Act (PRA) [16] provides that Federal agencies, including the Commission, may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid

[12] 17 CFR 40.5(a)(7)(iv); 40.6(a)(7)(iv); 40.10(a)(1) (including by reference the requirements of 17 CFR 40.6(a)(7)).

[13] 5 U.S.C. 601 *et seq.*

[14] 47 FR 18618 (Apr. 30, 1982).

[15] *See* 66 FR 45604, 45609 (Aug. 29, 2001).

[16] 44 U.S.C. 3501 *et seq.*

control number from the Office of Management and Budget (OMB). This proposed rulemaking contains reporting and recordkeeping requirements that are collections of information within the meaning of the PRA. This section addresses the impact that the proposal will have on existing information collection requirements associated with part 39 of the Commission's regulations.

The Commission is proposing to add new § 39.24(b)(11) to require a DCO to establish one or more RMC(s) and require its board of directors to consult with the relevant RMC on all matters that could materially affect the DCO's risk profile. The Commission also is proposing to add new § 39.24(b)(11)(i), which would require a DCO to maintain policies to ensure that the RMC consultation process is described in detail, including the documentation and consideration of input; new § 39.24(b)(11)(ii), which would require a DCO to maintain policies to ensure each RMC includes representatives from clearing members and customers of clearing members; new § 39.24(b)(11)(iii) to require a DCO to maintain policies that make certain membership of each RMC is rotated on a regular basis; new § 39.24(b)(12) to require a DCO to establish one or more RWG(s) and to maintain policies and procedures regarding the formation and role of each RWG; and new § 39.24(c)(1)(iv), which would require a DCO to establish fitness standards for RMC members. Finally, the Commission is proposing new § 39.24(c)(3), which would require a DCO to maintain policies enabling its RMC members to provide independent, expert opinions in the form of risk-based input to the RMC, and to perform their duties in a manner that supports the DCO's safety and efficiency and the stability of the broader financial system.

The proposed regulations require a DCO to develop governance arrangements for its RMC(s) and RWG(s), to the extent it does not already have governance arrangements meeting the requirements. Existing regulations require a DCO to disclose new governance arrangements to the extent permitted under applicable statutory and regulatory requirements on confidentiality to the Commission, other relevant authorities, clearing members and their customers, owners of the DCO, and the public.[17] Because this disclosure requirement stems from existing regulations, it is already included in the reporting burden estimate for § 39.24 and currently covered by the collection of information titled ''Requirements for Derivatives Clearing Organizations, OMB control number 3038–0076.'' The proposed regulations will not impose a new reporting burden and will not increase the reporting burden estimate.

Request for Comment

The Commission invites the public and other Federal agencies to comment on any aspect of the proposed information collection requirements discussed above. The Commission will consider public comments on this proposed collection of information in:

(1) Evaluating whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have a practical use;

(2) Evaluating the accuracy of the estimated burden of the proposed collection of information, including the degree to which the methodology and the assumptions that the Commission employed were valid;

(3) Enhancing the quality, utility, and clarity of the information proposed to be collected; and

(4) Minimizing the burden of the proposed information collection requirements on registered entities, including through the use of appropriate automated, electronic, mechanical, or other technological information collection techniques, *e.g.,* permitting electronic submission of responses.

The Commission specifically invites public comment on the accuracy of its estimates that the proposed regulations will not impose a new reporting burden and will not increase the reporting burden estimate.

Copies of the submission from the Commission to OMB are available from the CFTC Clearance Officer, 1155 21st Street NW, Washington, DC 20581, (202) 418–5160 or from *https://RegInfo.gov.* Organizations and individuals desiring to submit comments on the proposed information collection requirements should send those comments to:

- The Office of Information and Regulatory Affairs, Office of Management and Budget, Room 10235, New Executive Office Building, Washington, DC 20503, Attn: Desk Officer of the Commodity Futures Trading Commission;
- (202) 395–6566 (fax); or
- *OIRAsubmissions@omb.eop.gov* (email).

Please provide the Commission with a copy of submitted comments so that all comments can be summarized and addressed in the final rulemaking, and please refer to the **ADDRESSES** section of this proposed rule for instructions on submitting comments to the Commission. OMB is required to make a decision concerning the proposed information collection requirements between 30 and 60 days after publication of this proposed rule in the **Federal Register**. Therefore, a comment to OMB is best assured of receiving full consideration if OMB receives it within 30 calendar days of publication of this proposed rule. Nothing in the foregoing affects the deadline enumerated above for public comment to the Commission on the proposed rule.

C. Cost-Benefit Considerations

1. Introduction

Section 15(a) of the CEA requires the Commission to consider the costs and benefits of its actions before promulgating a regulation under the CEA or issuing certain orders.[18] Section 15(a) further specifies that the costs and benefits shall be evaluated in light of five specific considerations identified in Section 15(a) of the CEA (collectively referred to herein as Section 15(a) factors) addressed below.

The Commission recognizes that the proposed amendments may impose costs. The Commission has endeavored to assess the expected costs and benefits of the proposed amendments in quantitative terms, including PRA-related costs, where possible. In situations where the Commission is unable to quantify the costs and benefits, the Commission identifies and considers the costs and benefits of the applicable proposed amendments in qualitative terms. The lack of data and information to estimate those costs is attributable in part to the nature of the proposed amendments. Additionally, any initial and recurring compliance costs for any particular DCO will depend on the size, existing infrastructure, practices, and cost structure of the DCO.

The Commission generally requests comment on all aspects of its cost-benefit considerations, including the identification and assessment of any costs and benefits not discussed herein; data and any other information to assist or otherwise inform the Commission's ability to quantify or qualitatively describe the costs and benefits of the proposed amendments; and substantiating data, statistics, and any other information to support positions posited by commenters with respect to the Commission's discussion. The Commission welcomes comment on such costs, particularly from existing DCOs that can provide quantitative cost

[17] *See* 17 CFR 39.24(b)(2).

[18] 7 U.S.C. 19(a).

data based on their respective experiences. Commenters may also suggest other alternatives to the proposed approach.

2. Baseline

The baseline for the Commission's consideration of the costs and benefits of this proposed rulemaking are: (1) the DCO Core Principles set forth in Section 5b(c)(2) of the CEA; and (2) § 39.24. Specifically, DCO Core Principle O requires a DCO to establish governance arrangements that are transparent, to fulfill public interest requirements and to permit the consideration of the views of owners and participants, and § 39.24 implements DCO Core Principle O. Of the fifteen DCOs currently registered with the Commission, twelve already have some form of an RMC, which may have been intended, in part, to fulfill the DCO's compliance obligations under DCO Core Principle O and § 39.24. Of the fifteen DCOs currently registered with the Commission, six already have some form of an RWG, which may have been intended, in part, to fulfill the DCO's compliance obligations under DCO Core Principle O and § 39.24.

3. Proposed Amendments to § 39.24

a. Summary of Proposed Amendments

The Commission is proposing regulations that require each DCO to establish an RMC and require each DCO's board of directors to consult with, and consider and respond to input from, the RMC on all matters that could materially affect the DCO's risk profile. The Commission also proposes to require DCOs to: establish fitness standards for RMC members; maintain policies to ensure each RMC includes representatives from clearing members and customers of clearing members; maintain policies that require rotation of the membership of each RMC on a regular basis, and maintain written policies and procedures regarding the RMC consultation process. The Commission also proposes to require each DCO to maintain policies enabling RMC members to provide independent, expert opinions in the form of risk-based input to the RMC, and to perform their duties in a manner that supports the DCO's safety and efficiency and the stability of the broader financial system. Finally, the Commission proposes to require each DCO to establish one or more RWGs as a forum to seek risk-based input from a broad array of market participants, such that a diverse cross-section of the DCO's clearing members and customers of clearing members are represented, regarding all matters that could materially affect the risk profile of the DCO. RWGs would be required to convene at least quarterly. In addition, each DCO would be required to adopt written policies and procedures related to the formation and role of the RWG.

b. Benefits

The proposed additions to § 39.24 would promote more efficient, effective, and reliable DCO risk management, benefitting DCOs, clearing members, market participants, and the financial system more broadly. RMCs would provide a formal mechanism for DCOs to receive valuable expert input from market participants on critical issues including the DCO's margin model, default procedures, participation requirements, and risk monitoring practices, as well as the clearing of new products that could materially impact the DCO's risk profile. Moreover, codifying the requirement that a DCO's board of directors consult with, and consider and respond to input from, market participants on an RMC will formalize a widely-used method for engaging market participants in the risk governance process. This would allow DCOs to more effectively consider and address risks impacting DCO stability, market participant stability, and market resilience.

To the extent that some DCOs already have RMCs that are compliant or partially compliant with the proposed rules, the benefits of the proposed regulations are currently being realized to some degree.

The proposed regulations would help RMCs to be well positioned to provide effective risk management opinions to the DCO's board of directors by requiring DCOs to establish RMC membership fitness standards. These standards would help to ensure that individual RMC members are well qualified to perform the RMCs' duties. Ensuring that RMCs include representatives from clearing members and customers of clearing members would give DCOs the benefit of these stakeholders' perspectives on risk management issues, and gives market participants the benefit of a forum for conveying their input on risk management issues. Rotating the membership of the RMCs on a regular basis would promote a diversity of perspectives. In addition, requiring DCOs to implement policies enabling RMC members to provide independent, expert opinions in the form of risk-based input, and to perform their duties in a manner that supports the DCO's safety and efficiency, would help ensure that RMC members feel empowered to provide objective input during this process by serving as independent experts that are neither beholden to their employers' commercial interests nor acting as fiduciaries of the DCO. These requirements for RMCs and their members collectively increase the likelihood of effective DCO risk management. Finally, requiring DCOs to develop and maintain policies and procedures governing DCO board of directors consultation with its RMC(s), and to document the activities of its RMC(s), will promote transparency, accountability, and predictability, and facilitate effective oversight by the Commission in this area.

Similarly, the requirement that each DCO establish one or more RWGs will further increase the likelihood of effective DCO risk management by providing each DCO with an expanded pool of clearing member and customer of clearing member representatives to consult when considering matters that could materially affect the risk profile of the DCO. Requiring DCOs to maintain written policies and procedures related to the formation and role of each risk advisory working group will promote transparency, accountability, and predictability and facilitate effective oversight by the Commission in this area.

As discussed above, the Commission requests comments on the potential benefits of the proposed changes to § 39.24, including benefits that would be realized by DCOs, other market participants (including clearing members and their customers), or the financial system more broadly.

c. Costs

To the extent that some DCOs do not already have RMCs or would need to adjust the policies and procedures of their existing RMCs to comply with the proposed rules, the proposed regulations would impose some costs on DCOs. Costs could arise from additional hours a DCO's employees might need to spend analyzing the compliance of the DCO's rules and procedures with these requirements, designing and drafting new or amended rules and procedures when necessary, and implementing these new or amended rules and procedures. Specifically, DCOs would need to draft governance arrangements providing for RMCs and RWGs with the membership requirements and policies stated in the proposed amendments to § 39.24 if compliant arrangements are not already in place.

Drafting new governance arrangements would cost DCOs administrative time. The amount of time required for each DCO to initially implement the proposed requirement

would vary based on a number of factors, including whether the DCO already has policies complying with the proposed regulations and the amount of time needed for each DCO to design and draft new or amended policies where necessary. As noted above, twelve of the fifteen DCOs currently registered with the Commission already have RMCs in place in some form, which may lower the cost of implementing the proposed regulations. Further, the DCOs' policies implementing the proposed regulations would likely not change significantly from year to year, so after the initial creation of the policies, the time required to create rules and procedures would be minimal.

Ongoing implementation of the proposed regulations would also impose costs. Establishing and operating an RMC would cost a DCO time to identify potential RMC members that meet the fitness standards when the RMC is initially formed, as well as each time the RMC membership is rotated. Operation of the RMC would require a DCO to provide information to the RMC as needed for its consideration, and time for the DCO's board to consult with the RMC and consider and respond to its input. An RMC's operation would also require time from its members to consider relevant information regarding the DCO's risk practices, and to form and deliver its views. These costs would, however, be dispersed among different participants over time due to the proposed requirement that DCOs rotate their RMC members regularly.

As discussed above, the Commission requests comments on the potential costs of the proposed amendments to § 39.24, including any costs that would be imposed on DCOs, other market participants, or the financial system more broadly. In particular, for those DCOs that already have RMCs and RWGs in place, the Commission requests comment on the extent to which the proposed regulations would require changes to the DCO's existing policies and procedures regarding its RMC(s) and RWG(s).

d. Section 15(a) Factors

In addition to the discussion above, the Commission has evaluated the costs and benefits of the proposed amendments to § 39.24 in light of the following five broad areas of market and public concern identified in Section 15(a) of the CEA: (1) protection of market participants and the public; (2) efficiency, competitiveness, and financial integrity of futures markets; (3) price discovery; (4) sound risk management practices; and (5) other public interest considerations. The Commission believes that the proposed amendments would have a beneficial effect on sound risk management practices and on the protection of market participants and the public.

(1) *Protection of market participants and the public:* The proposed regulations also would protect market participants and the public by improving DCOs' identification and handling of risk, reducing the likelihood that market participants and the public face unexpected costs resulting from deficient DCO risk management. The proposed amendments to § 39.24 also give market participants a voice in DCO risk management matters through their participation in RMCs and RWGs, increasing the likelihood that risks to market participants are adequately considered and minimized.

(2) *Efficiency, competitiveness, and financial integrity of futures markets:* The improvements to DCO risk management practices that the proposed regulations are designed to encourage also would benefit the financial integrity of futures and cleared swap markets. The Commission has not identified any other effect of the proposed rules on efficiency, competitiveness, and financial integrity.

(3) *Price discovery:* The Commission has not identified any effect of the proposed regulations on price discovery.

(4) *Sound risk management practices:* The proposed regulations are designed to support sound risk management practices at DCOs by providing a forum for independent, expert risk-based input to a DCO's board of directors from clearing members and customers of clearing members. Proposed requirements regarding RMC composition, fitness standards for RMC members, and RMC membership rotation all support RMCs' purpose of promoting sound risk management practices. In addition, the proposed requirement that a DCO establish one or more RWGs is designed to further expand and diversify the information available to a DCO while making material risk decisions, and to expand opportunities for those with a stake in DCO risk management to provide input, which further promotes sound risk management.

(5) *Other public interest considerations:* The Commission has not identified any effect of the proposed regulations on other public interest considerations.

D. Antitrust Considerations

Section 15(b) of the CEA requires the Commission to take into consideration the public interest to be protected by the antitrust laws and endeavor to take the least anticompetitive means of achieving the purposes of the CEA, in issuing any order or adopting any Commission rule or regulation.[19]

The Commission believes that the public interest to be protected by the antitrust laws is the promotion of competition. The Commission requests comment on whether the proposed amendments implicate any other specific public interest to be protected by the antitrust laws. The Commission has considered the proposed rulemaking to determine whether it is anticompetitive and has identified no anticompetitive effects. The Commission requests comment on whether the proposed rulemaking is anticompetitive and, if it is, what the anticompetitive effects are.

Because the Commission has preliminarily determined that the proposed rule amendments are not anticompetitive and have no anticompetitive effects, the Commission has not identified any less anticompetitive means of achieving the purposes of the CEA. The Commission requests comment on whether there are less anticompetitive means of achieving the relevant purposes of the CEA that would otherwise be served by adopting the proposed rule amendments.

List of Subjects in 17 CFR Part 39

Governance requirements.

For the reasons stated in the preamble, the Commodity Futures Trading Commission proposes to amend 17 CFR part 39 as follows:

PART 39—DERIVATIVES CLEARING ORGANIZATIONS

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

Authority: 7 U.S.C. 2, 6(c), 7a–1, and 12a(5); 12 U.S.C. 5464; 15 U.S.C. 8325; Section 752 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111–203, title VII, sec. 752, July 21, 2010, 124 Stat. 1749.

■ 2. Amend § 39.24 as follows:
■ a. Revise paragraphs (b)(9) and (b)(10)(iii);
■ b. Add paragraphs (b)(11) and (12);
■ c. Redesignate paragraphs (c)(1)(iv) and (v) as paragraphs (c)(1)(v) and (vi) and add new paragraph (c)(1)(iv); and
■ d. Add paragraph (c)(3).

The revisions and additions read as follows:

§ 39.24 Governance.

* * * * *

(b) * * *

[19] 7 U.S.C. 19(b).

(9) Assign responsibility and accountability for risk decisions, including in crises and emergencies;

(10) * * *

(iii) Recovery and wind-down plans required by § 39.39, as applicable;

(11) Establish one or more risk management committees and require the board of directors to consult with, and consider and respond to input from, the risk management committee(s) on all matters that could materially affect the risk profile of the derivatives clearing organization, including any material change to the derivatives clearing organization's margin model, default procedures, participation requirements, and risk monitoring practices, as well as the clearing of new products. A derivatives clearing organization shall maintain written policies and procedures to make certain that:

(i) The risk management committee consultation process is described in detail, and includes requirements for the derivatives clearing organization to document the board's consideration of and response to risk management committee input;

(ii) A risk management committee includes representatives from clearing members and customers of clearing members; and

(iii) Membership of a risk management committee is rotated on a regular basis; and

(12) Establish one or more market participant risk advisory working groups as a forum to seek risk-based input from a broad array of market participants, such that a diverse cross-section of the derivatives clearing organization's clearing members and customers of clearing members are represented, regarding all matters that could materially affect the risk profile of the derivatives clearing organization. A derivatives clearing organization shall maintain written policies and procedures related to the formation and role of each risk advisory working group. Each market participant risk advisory working group shall convene at least quarterly.

(c) * * *

(1) * * *

(iv) Members of risk management committee(s);

* * * * *

(3) A derivatives clearing organization shall maintain policies designed to enable members of risk management committee(s) to provide independent, expert opinions in the form of risk-based input on all matters presented to the risk management committee for consideration, and perform their duties in a manner that supports the safety and efficiency of the derivatives clearing organization and the stability of the broader financial system.

Issued in Washington, DC, on July 29, 2022, by the Commission.

Christopher Kirkpatrick,

Secretary of the Commission.

Note: The following appendices will not appear in the Code of Federal Regulations.

Appendices to Governance Requirements for Derivatives Clearing Organizations—Commission Voting Summary, Chairman's Statement, and Commissioners' Statements

Appendix 1—Commission Voting Summary

On this matter, Chairman Behnam and Commissioners Johnson, Goldsmith Romero, Mersinger, and Pham voted in the affirmative. No Commissioner voted in the negative.

Appendix 2—Statement of Support of Chairman Rostin Behnam

The last several years have tested the resilience of the derivatives markets and post-financial crisis reforms more generally in ways that few risk scenarios could have contemplated. Despite a resoundingly strong response to the numerous market shocks, the global regulatory community, in concert with market participants, has appropriately debated the need for additional tools, resources, and rules to manage these and future risks. As farmers, ranchers, corporates, pension funds, insurers, and other market participants continue to turn to the derivatives markets for risk management and price discovery, it is critical that derivatives clearing organizations (DCOs) clearing these products sufficiently calibrate their risk management tools and frameworks to meet the most extreme, but plausible, tail events.

DCOs with governance structures that embrace the diverse risk-based views of clearing members and their clearing members' customers will be better situated to refine their risk management frameworks to withstand extreme but plausible market conditions while promoting financial stability. With an ever-evolving risk landscape, including new clearing structures, new product innovation, and the emerging risk of climate change to name just a few, it is critical that DCOs' governance arrangements and fitness standards evolve.

That is why I support today's proposal to amend the governance requirements for DCOs in CFTC Regulation 39.24 to enhance the role of clearing members and customers of clearing members in the risk governance process for DCOs. A DCO's robust risk management framework is particularly critical because of the systemic nature of clearinghouses and the integral role that DCOs have in promoting financial stability.

Today's DCO governance proposal is a direct outgrowth of the work of the Central Counterparty (CCP) Risk and Governance Subcommittee (Subcommittee) of the Commission's Market Risk Advisory Committee (''MRAC''),[1] of which I was the immediate past Sponsor. The Subcommittee's February 2021 report to the MRAC provided several recommendations for improving DCO governance standards that the Commission is proposing today to amend CFTC Regulation 39.24.

First, the Commission proposes to require each DCO to establish one or more risk management committees (RMCs) to consult wit clearing members and clearing member customers prior to making any decisions that could materially affect the risk profile of the DCO. Under the proposal, the DCO would need to consult with the RMC for material changes to a DCO's margin model, default procedures, participation requirements, risk monitoring practices, and clearing of new products. The proposal would further require a DCO to have written policies and procedures related to the RMC's consultation process, composition, and rotation of the membership on a regular basis. As proposed, a DCO would be required to establish and enforce appropriate fitness standards for RMC members. The Commission also proposes that a DCO maintain policies that are designed to enable RMC members to provide independent, expert opinions in the form of risk-based input on all matters presented to the RMC for its consideration.

Second, the Commission proposes to require each DCO to establish one or more risk advisory working groups (RWGs) as a forum to seek risk-based input (as opposed to commercially-driven input) from a broader array of market participants on matters that could materially affect the DCO's risk profile. The Commission proposes to require a DCO to maintain written policies and procedures related to the formation and role of each RWG, which would be required to convene at least quarterly.

Finally, the Commission is also requesting comment on the consultation process to add or amend a DCO rule, disclosure of opposing views in a rule submission, and whether DCOs should be required to maintain policies and procedures designed to enable an RMC member to share certain types of information in order to obtain additional expert opinions.

Today's proposal is an extremely positive and critical step towards further enhancing the effectiveness of the CFTC's governance standards. Strengthening the clearing ecosystem and developing a DCO governance policy has been a priority since I joined the Commission in 2017. As Chairman, this critical market infrastructure will remain a focus, and I look forward to taking a data-driven approach to support any possible enhancements to the agency's oversight of DCOs, ensuring coordination and consistency with our domestic and international partners as we collectively pursue our shared goals of market resiliency and financial stability.

[1] The MRAC is a discretionary advisory committee established by the authority of the Commission in accordance with the Federal Advisory Committee Act. 5 U.S.C. App. 2. The MRAC advises the Commission on matters related to evolving market structures and movement of risk across clearinghouses, exchanges, intermediaries, market makers, and end-users. *See* Market Risk Advisory Committee, *available at https://www.cftc.gov/About/AdvisoryCommittees/MRAC.*

Today is a big step, and the Commission will continue to monitor the clearing ecosystem and engage market participants on DCO risk and governance issues in the future.

I wish to again thank the hardworking staff in the Division of Clearing and Risk for all of their efforts towards bringing us here today.

Appendix 3—Statement of Support of Commissioner Kristin N. Johnson

I support the Commission's consideration of the proposed derivatives clearing organization (DCO) governance measures that establish structural and procedural mechanisms designed to improve efforts to identify and mitigate material risks, strengthen DCO resilience, and foster the integrity of our markets.

DCOs provide comprehensive settlement services and take on counterparty risk with the assistance of clearing members to facilitate centralized and over-the-counter trading. DCOs also stand as final guarantors of performance in the event of a customer and clearing member default. The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) [1] introduced groundbreaking reforms that directed the bulk of derivatives trading to DCOs, charging them with the great responsibility of maintaining the integrity of the derivatives markets through comprehensive and prudent risk mitigation practices. These practices include securely handling participant funds and assets, developing and administering robust forward-looking margining frameworks for idiosyncratic markets, consistently setting appropriate margin levels for trader portfolios, and collecting risk-based guaranty fund contributions from clearing members. DCO risk mitigation practices thereby can profoundly impact individual firms and, depending on the systemic importance of a specific DCO, the broader financial market.

The proposed rules include recommendations that the Commission received from the Central Counterparty (CCP) Risk and Governance (Subcommittee) of the Market Risk Advisory Committee (MRAC).[2] I thank Chairman Behnam, who previously served as the sponsor of the MRAC and its subcommittees. The Subcommittee's Report is the product of effective collaboration among market participants with divergent views. The Report reflects the leadership of Chairman Behnam and the Subcommittee Co-Chairs, Alicia Crighton and Lee Betsill, as well as the exceptional stewardship of Alicia Lewis, Special Counsel to the Chairman. Today, I serve as the MRAC's sponsor, and intend to continue the work of Chairman Behnam and further the goals outlined in the Committee's Charter—''promoting the integrity, resilience, and vibrancy of the U.S. derivatives markets through sound regulation, as well as the monitoring and management of systemic risk.'' [3]

The proposed rulemaking requires DCOs to standup risk management committees comprised of clearing members and their customers to leverage their risk management expertise and formalize the role of market participants in the DCO governance process pursuant to DCO Core Principles. The proposed rulemaking acknowledges that, at times, the perspectives of DCOs and their clearing members may not be aligned. As privately-owned businesses DCOs balance the interests of their owners and those of clearing members who have strong incentives to mitigate preventable default because DCO clearing members disproportionately bear default costs. DCOs adopt diverse business organizational forms and may have existing board committees focused on risk management oversight, however, we anticipate that comments to the proposal will articulate the best approach for establishing a clear and uniform process for risk management committees to report concerns on all matters that could materially affect a DCO's risk profile to the board of directors or appropriate decision-making authority and for ensuring that the decision-making authority effectively considers the reported concerns.

In 2010 and 2011, similar requirements were proposed but not adopted.[4] DCO Core Principles O (Governance Fitness Standards), P (Conflicts of Interest), and Q (Composition of Governing Boards) collectively address governance requirements related to considering the views of owners and participants, adopting appropriate fitness standards for directors and others, minimizing and resolving conflicts of interest in decision-making, and including market participants on governing boards or committees. DCO Core Principle O expressly directs each DCO to establish governance arrangements that ''permit the consideration of the view of owners and participants.'' [5] Consequently, today's proposal rekindles a critical, unresolved effort to reinforce DCO risk governance.

While I am supportive of the proposal, I stand committed to carefully consider, based on the comments that we receive, the benefits, efficacy, limitations, and burdens of the proposed governance rules. There are certain aspects of the proposal where I particularly believe substantive comments from market participants will tremendously add value to the deliberative process. I am hopeful that the comments submitted in response to the proposal will support drafting final rules that make our markets stronger and safer through regulatory oversight. I am sensitive to the need to consider how the proposed measures supplement existing risk management oversight and concerns about the need to ensure that the proposed rules effectively accomplish the articulated goals of making our markets safer and more resilient.

With the considerations noted above, I support issuing today's proposal for comment. The Dodd-Frank Act prominently entrusts DCOs with maintaining the integrity of the derivatives markets through risk mitigation practices that can profoundly impact individual firms and the broader financial market. The Dodd-Frank Act amendments to the Commodity Exchange Act also expressly direct each DCO to establish governance arrangements that internalize the views of participants. I look forward to receiving substantive commentary from all stakeholders to facilitate tailoring governance rules that further enhance a DCO's ability to prudently manage risk.

Appendix 4—Statement of Support of Commissioner Christy Goldsmith Romero

I support the Commission's efforts to strengthen the resilience of clearing houses to future risk, including through this proposed rule. Since the 2008 financial crisis, I have spent my entire career in [Federal] public service helping our nation recover, and build a stronger, safer, more resilient, financial system. I have seen how clearing houses play an important public interest role—one of critical market infrastructure that fosters financial stability, trust and confidence in U.S. markets. The Financial Stability Oversight Council (''FSOC'') has recognized this public interest role, designating several clearing houses as systemically important Financial Market Utilities. FSOC's designation highlights the important role that the Commission plays in the oversight of clearing houses.

Thank you to the staff for taking this oversight role seriously. Thank you for working closely with me and my office on changes to improve the proposal in ways that will facilitate effective oversight by the Commission and promote greater accountability, transparency, and predictability.

Clearing houses serve as a cornerstone to mitigating risk in U.S. markets. The 2008 financial crisis revealed that over-the-counter trades left market participants vulnerable to the weaknesses of their counterparties, and left regulators in the dark about hidden risk. In contrast, clearing houses—who put themselves in the center of counterparties—take on counterparty risk and bring transparency to the markets and regulators.

One important post-crisis reform was to increase central clearing of trades in U.S. markets, putting clearing houses in even more of a public interest role. However, this has resulted in a concentration of more risk in clearing houses. FSOC found that the failure or disruption of systemically important clearing houses ''could create or increase the risk of significant liquidity or credit problems spreading among financial

[1] Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law 111–203, tit. VII (July 21, 2010) (codified in relevant part at 7 U.S.C. 7a–1).

[2] *See* Report of the Central Counterparty (CCP) Risk and Governance Subcommittee, Market Risk Advisory Committee of the U.S. Commodity Futures Trading Commission (Feb. 23, 2021) (the ''Report'').

[3] MRAC Charter available at *https://www.cftc.gov/About/AdvisoryCommittees/MRAC*.

[4] *See* Requirements for Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities Regarding the Mitigation of Conflicts of Interest, 75 FR 63732 (Oct. 18, 2010); Governance Requirements for Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities, Additional Requirements Regarding the Mitigation of Conflicts of Interest, 76 FR 722 (Jan. 6, 2011).

[5] 7 U.S.C. 7a–1(c)(2)(O).

institutions or markets and thereby threaten the stability of the U.S. financial system.'' [1]

The systemic nature of several clearing houses registered with the Commission further underscores the need for vigilant oversight by the Commission.[2] Under the Commission's oversight, clearing houses have shown resilience in navigating an ever-growing list of recent market stress events. They have helped U.S. markets maintain financial stability during the global pandemic, supply chain issues, and geopolitical events.

However, uncertainty surrounding these events has driven home the need for the Commission to enhance its rules so that clearing houses strengthen their resilience to future risk. The public interest role of clearing houses is best served when the clearing houses work with their clearing members who have much at stake as they shoulder the burden of losses and defaults. Clearing houses, members, and end users should work collaboratively to decide how to increase the resilience of their respective clearing house, and how to best navigate risk during times of market stress. Simply put, there is strength in numbers and diversity of perspective.

We have seen how clearing houses have benefitted from risk management committees and other working groups that reflect a broad coalition of stakeholders. Their voices should be heard in a meaningful way.[3] Today, the Commission proposes formalizing requirements for these committees.[4] We propose a requirement for the consideration of input from members of risk committees on matters that could strengthen or weaken the resilience of the clearing organization to future risk. The proposed rule seeks to balance the calls of those on the committees for increased transparency, predictability, and a voice in risk management, with the clearing houses' calls for flexibility and consideration of their own internal opinions on risk. Commenters will tell us whether we have gotten this balance right in a way that will strengthen the resilience of clearing houses to future risk while keeping it agile to respond to sudden market events.

Additionally, we endeavor to formalize governance rules that promote accountability of clearing houses, and facilitate oversight by the CFTC. Both accountability and oversight are served in the proposal through written policies and procedures, and documentation that stakeholder voices have been solicited and heard. The proposal is not prescriptive about the content of the policies and procedures. A requirement for written policies and procedures, accompanied by documentation of the consideration of input, will benefit the full range of clearing houses, from systemically significant clearing houses to new or future clearing houses, including in the digital asset space, who may not have a history of risk management committees.

It is my hope that over time, a requirement for policies and procedures will serve as a launch pad for best practices to emerge. I look forward to public comment on additional opportunities for how the Commission can effectively advance best practices, including the question of whether the Commission should require the publication of the policies and procedures, and whether the Commission should be prescriptive of the content. I also look forward to comments on whether meetings of risk advisory working groups should be documented to ensure that those members' voices are adequately heard in a meaningful way.

Today's proposal serves as an important first step to promote accountability, transparency, predictability, and effective oversight for the governance of clearing houses. We also invite comment on certain future rulemaking for best practices. I look forward to future consideration of additional opportunities for the Commission to promote transparency, accountability, predictability, and effective oversight.[5]

[FR Doc. 2022–16683 Filed 8–10–22; 8:45 am]

BILLING CODE 6351–01–P

[1] *See https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc/designations.* FSOC designates clearing houses who serve as central counterparties responsible for clearing a large majority of trades as systemically important Financial Market Utilities.

[2] The Commodity Exchange Act established several core principles for Derivatives Clearing Houses, including a requirement that the clearing houses establish governance arrangements that are transparent to fulfill public interest requirements and to permit the consideration of the views of owners and participants. 7 U.S.C. 7a–1(c)(2)(O). To further implement these core principles, the Commission adopted several rules including a rule that clearing houses maintain clear, documented governance arrangements. Commission regulation 39.24(b).

[3] The Commission previously stated that clearing organization governance rules, ''improve DCO risk management practices by promoting transparency of governance arrangements and making sure that the interests of a DCO's clearing members and, where relevant, their customers are taken into account.'' Derivatives Clearing Organization General Provisions and Core Principles, 85 FR 4800, 4848 (Jan. 27. 2020).

[4] Proposals include broad and diverse participation, fitness, the importance of independent, expert opinions, and a performance of committee duties focused on the safety of the clearing organization and the stability of the financial system.

[5] While there may be a diversity of views on these additional opportunities, I hope that diversity will help, rather than deter, this independent Commission to develop strong and long-lasting rules to strengthen the resilience of clearing houses to future risk.

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2022–0626]

RIN 1625–AA00

Safety Zone; Firework Event, Willamette River, Portland, OR

AGENCY: Coast Guard, Department of Homeland Security (DHS).

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard is proposing to establish a temporary safety zone for certain waters of the Willamette River. This action is necessary to provide for the safety of life on these navigable waters near Oaks Park, Portland, OR, during a fireworks display on October 31, 2022. This proposed rulemaking would prohibit persons and vessels from being in the safety zone unless authorized by the Captain of the Port Sector Columbia River or a designated representative. We invite your comments on this proposed rulemaking.

DATES: Comments and related material must be received by the Coast Guard on or before September 12, 2022.

ADDRESSES: You may submit comments identified by docket number USCG–2022–0626 using the Federal Decision Making Portal at *https://www.regulations.gov.* See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this proposed rulemaking, call or email LT Sean Murphy, Waterways Management Division, Marine Safety Unit Portland, U.S. Coast Guard; telephone 503–240–9319, email *D13-SMB-MSUPortlandWWM@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
COTP Captain of the Port Columbia River
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of proposed rulemaking
§ Section
U.S.C. United States Code

II. Background, Purpose, and Legal Basis

On June 14, 2022, the Oaks Park Association notified the Coast Guard that it will be conducting a fireworks display from 7 to 7:30 p.m. on October 31, 2022. The fireworks are to be launched from a barge in the Willamette River offshore of Oaks Park, Portland, Oregon. Hazards from firework displays include accidental discharge of fireworks, dangerous projectiles, and falling hot embers or other debris. The Captain of the Port Sector Columbia River (COTP) has determined that potential hazards associated with the fireworks to be used in this display would be a safety concern for anyone within a 1,000 ft. radius of the barge.

The purpose of this rulemaking is to ensure the safety of vessels and the

navigable waters within a 1,000 ft. radius of the fireworks barge before, during, and after the scheduled event. The Coast Guard is proposing this rulemaking under authority in 46 U.S.C. 70034 (previously 33 U.S.C. 1231).

III. Discussion of Proposed Rule

The COTP is proposing to establish a safety zone from 6:30 to 8 p.m. on October 31, 2022. The safety zone would cover navigable waters within 1,000 ft radius of a barge in the Willamette River located offshore of Oaks Park, Portland, OR. The duration of the zone is intended to ensure the safety of vessels and these navigable waters before, during, and after the scheduled 7 to 7:30 p.m. fireworks display. No vessel or person would be permitted to enter the safety zone without obtaining permission from the COTP or a designated representative. The regulatory text we are proposing appears at the end of this document.

IV. Regulatory Analyses

We developed this proposed rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This NPRM has not been designated a ''significant regulatory action'' under Executive Order 12866. Accordingly, the NPRM has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the size, location, and duration of the safety zone. The safety zone created by this proposed rule is designed to minimize its impact on navigable waters. This proposed rule will prohibit entry into certain navigable waters of the Willamette River and is not anticipated to exceed two hours in duration. Thus, restrictions on vessel movement within that particular area are expected to be minimal. Moreover, under certain conditions, vessels may still transit through the safety zone when permitted by the COTP. The Coast Guard will issue a Broadcast Notice to Mariners via VHF–FM marine channel 16 about the zone and the rule allows vessels to seek permission to enter the zone.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 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 certifies under 5 U.S.C. 605(b) that this proposed rule would not have a significant economic impact on a substantial number of small entities. While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section IV.A above, this proposed rule would not have a significant economic impact on any vessel owner or operator.

If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this proposed rule would have a significant economic impact on it, please submit a comment (see **ADDRESSES**) explaining why you think it qualifies and how and to what degree this rule would economically affect it.

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 proposed rule. If the proposed rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section. The Coast Guard will not retaliate against small entities that question or complain about this proposed rule or any policy or action of the Coast Guard.

C. Collection of Information

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

D. Federalism and Indian Tribal Governments

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 proposed rule under that order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this proposed rule does not have tribal implications under Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments) because it would 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. If you believe this proposed rule has implications for federalism or Indian tribes, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

E. 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 proposed rule would not result in such an expenditure, we do discuss the potential effects of this proposed rule elsewhere in this preamble.

F. Environment

We have analyzed this proposed rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have made a preliminary determination 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 proposed rule involves a safety zone lasting 1.5 hours that would prohibit entry within 1,000 feet of a fireworks barge. Normally, such actions are categorically excluded from further review under paragraph L60(a) of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. A preliminary Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email 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.

V. Public Participation and Request for Comments

We view public participation as essential to effective rulemaking, and will consider all comments and material received during the comment period. Your comment can help shape the outcome of this rulemaking. If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

Submitting comments. We encourage you to submit comments through the Federal Decision Making Portal at *https://www.regulations.gov.* To do so, go to *https://www.regulations.gov,* type USCG–2022–0626 in the search box and click ''Search.'' Next, look for this document in the Search Results column, and click on it. Then click on the Comment option. If you cannot submit your material by using *https://www.regulations.gov,* call or email the person in the **FOR FURTHER INFORMATION CONTACT** section of this proposed rule for alternate instructions.

Viewing material in docket. To view documents mentioned in this proposed rule as being available in the docket, find the docket as described in the previous paragraph, and then select ''Supporting & Related Material'' in the Document Type column. Public comments will also be placed in our online docket and can be viewed by following instructions on the *https://www.regulations.gov* Frequently Asked Questions web page. We review all comments received, but we will only post comments that address the topic of the proposed rule. We may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

Personal information. We accept anonymous comments. Comments we post to *https://www.regulations.gov* will include any personal information you have provided. For more about privacy and submissions to the docket in response to this document, see DHS's eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

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 is proposing to amend 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: 46 U.S.C. 70034, 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.2.

■ 2. Add § 165.T13–0626 to read as follows:

§ 165.T13–0626 Safety Zone; Willamette River, Portland, OR.

(a) *Location.* The following area is a safety zone: All navigable waters of the Willamette River, from surface to bottom, in a 1,000 ft. radius from the fireworks barge off shore of Oaks Park, Portland, OR.

(b) *Definitions.* As used in this section, *designated representative* means a Coast Guard Patrol Commander, including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port Columbia River (COTP) in the enforcement of the regulations in this section.

(c) *Regulations.* (1) Under the general safety zone regulations in subpart C of this part, you may not enter the safety zone described in paragraph (a) of this section unless authorized by the COTP or the COTP's designated representative.

(2) To seek permission to enter, contact the COTP or the COTP's representative by calling (503) 209–2468 or the Sector Columbia River Command Center on Channel 16 VHF–FM. Those in the safety zone must comply with all lawful orders or directions given to them by the COTP or the designated representative.

(d) *Enforcement period.* This section will be enforced from 6:30 to 8 p.m. on October 31, 2022. It will be subject to enforcement this entire period unless the COTP determines it is no longer needed, in which case the Coast Guard will inform mariners via Notice to Mariners.

Dated: July 27, 2022.

M. Scott Jackson,

Captain, U.S. Coast Guard, Captain of the Port Sector Columbia River.

[FR Doc. 2022–16562 Filed 8–10–22; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R02–OAR–2021–0483; FRL–9158–01–R2]

Approval of Air Quality Implementation Plans; New York; Revision to 6 NYCRR Part 205, Architectural and Industrial Maintenance Coatings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a revision to the New York State Implementation Plan (SIP) for the purposes of implementing control of air pollution for volatile organic compounds (VOC). The proposed SIP revision consists of amendments to regulations outlined within New York's Codes, Rules, and Regulations that implement control measures for architectural and industrial maintenance coatings. The intended effect of this action is to approve control strategies which will result in VOC emission reductions that will help attain and maintain the national ambient air quality standards for ozone. These actions are being taken in accordance with the requirements of the Clean Air Act.

DATES: Written comments must be received on or before September 12, 2022.

ADDRESSES: Submit your comments, identified by Docket ID Number EPA–R02–OAR–0483, at *http://www.regulations.gov.* Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov.* The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not

consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www2.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Linda Longo, at (212) 637–3356, or by email at *longo.linda@epa.gov,* or by mail at Environmental Protection Agency, Region 2, 290 Broadway, New York, New York 10007–1866.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background
II. What was included in New York's submissions for part 205?
III. What is the EPA's evaluation of part 205?
IV. What is the EPA's evaluation of part 200?
V. The EPA's Proposed Action
VI. Incorporation by Reference
VII. Statutory and Executive Order Reviews

I. Background

Ozone Requirements

In March 2008, the EPA revised the health-based National Ambient Air Quality Standard (NAAQS) for ozone to 0.075 parts per million (ppm) averaged over an 8-hour time frame (2008 8-hour Ozone Standard). *See* 73 FR 16435 (March 27, 2008). In October 2015, the EPA revised this standard to 0.070 ppm averaged over an 8-hour time frame (2015 8-hour Ozone Standard). *See* 80 FR 65291 (October 26, 2015).

On May 21, 2012, the EPA finalized its attainment/nonattainment designations for areas across the country with respect to the 2008 8-hour Ozone Standard, which became effective on July 20, 2012. *See* 77 FR 30160 (May 21, 2012). The New York-Northern New Jersey-Long Island-Connecticut metropolitan area (NYMA) was designated by the EPA as a ''marginal'' nonattainment area for the 2008 ozone NAAQS.[1] In 2016, the EPA determined that the NYMA did not attain the 2008 ozone standard by the July 20, 2015 attainment date and was reclassified from a ''marginal'' to a ''moderate'' nonattainment area. *See* 81 FR 26697 (May 4, 2016). SIPs for ''moderate'' nonattainment areas were due by January 1, 2017. *See id.* On April 30, 2018, the EPA finalized its attainment/nonattainment designations for most areas across the country as to the 2015 8-hour Ozone Standard, in which the NYMA was designated by the EPA as a ''moderate'' nonattainment area. *See* 83 FR 25776 (June 4, 2018). On September 23, 2019, the EPA reclassified the NYMA to ''serious'' nonattainment as to the 2008 8-hour Ozone Standard. *See* 84 FR 44238 (August 23, 2019). The serious area attainment date and the deadline for Reasonably Available Control Technology measures not tied to attainment was July 20, 2021. *See id.*

II. What was included in New York's submission for part 205?

On October 15, 2020, New York submitted a proposed SIP revision to title 6 of the New York Codes, Rules, and Regulations (6 NYCRR), part 205, ''Architectural and Industrial Maintenance Coatings.'' New York also submitted attendant revisions to Part 200, Section 200.9, ''General Provisions, Reference materials.'' The State's submission is complete. The proposed rulemaking applies statewide to any person who supplies, sells, offers for sale, or manufacturers any architectural coating for use within the State of New York, and any person who applies or solicits the application of any architectural coating within the State of New York.

III. What is the EPA's evaluation of part 205?

The most recent federally approved revision of 6 NYCRR part 205, ''Architectural and Industrial Maintenance coatings'' regulations was published in the **Federal Register** on March 8, 2012, as an attendant revision to avoid redundancy and conflict of the asphalt paving and coating provisions included in the new part 241, ''Asphalt Pavement and Asphalt Based Surface Coating.'' *See* 70 FR 13974 (March 8, 2012). The current proposed rulemaking submitted by the State on October 15, 2020, is intended to be consistent with the Ozone Transport Region (OTR) Model Rule for Architectural and Industrial Maintenance (AIM) coatings (OTR Model Rule for AIM)[2] by reducing the VOC limit for 12 coating categories, creating VOC limits for 12 additional coating categories, eliminating 15 coating categories without relaxation of the regulation, and narrowing the exemption previously provided to coatings sold in one-liter (or quart-size) containers, referred to the as the ''quart exemption.'' *See* ''Revisions to the quart exemption for bundling of quart-sized containers,'' below, for further details.

OTC Model Rule and Neighboring States

The OTC Model Rule for AIM was developed by the Ozone Transport Commission through stakeholder involvement to address the needs of ozone transport states. The OTR Model Rule for AIM was amended in 2011 to address VOC content limits based on the California Air Resource Board's (CARB) Suggested Control Measures (SCM) for architectural coatings. The EPA reviewed New York State's October 15, 2020, SIP submission and confirms its consistency with the OTR Model Rule for AIM. Furthermore, neighboring states Connecticut (CT), New Jersey (NJ), and Pennsylvania (PA), also followed the OTC Model Rule for AIM and have equivalent provisions, VOC limits, and measures. For example, the NJ, PA, and CT floor coating category content limit is 250 grams of VOC/liter, compared to the New York State Department of Environmental Law and Conservation's (NYSDEC) floor coatings category of 100 grams of VOC/liter; NJ's exemptions apply to contact adhesives in containers with a net volume of one gallon or less, compared to New York's retention of the one-liter-or-less exemption except for floor coatings, along with PA and CT.

Reduced VOC Limits

The proposed revision includes reduced VOC limits on the following coating categories: (1) Flat coatings, whose limit was reduced from 100 to 50 grams of VOC/liter; (2) non-flat coatings, whose limit was reduced from 150 to 100 grams of VOC/liter; (3) non-flat high gloss coatings, whose limit was reduced from 250 to 150 grams of VOC/liter; (4) bituminous roof coatings, whose limit was reduced from 300 to 270 grams of VOC/liter; (5) dry fog coatings, whose limit was reduced from 400 to 150 grams of VOC/liter; (6) floor coatings, whose limit was reduced from 250 to 100 grams of VOC/liter; (7) industrial maintenance coatings, whose limit was reduced from 340 to 250 grams of VOC/liter; (8) mastic texture coatings, whose limit was reduced from 300 to 100 grams of VOC/liter; (9) primers, sealers, and undercoaters, whose limit was reduced from 200 to 100 grams of VOC/liter; (10) rust preventative coatings, whose limit was reduced from 400 to 250 grams of VOC/liter; (11) specialty primers, sealers, and undercoaters, whose limit was reduced from 350 to 100 grams of VOC/liter; and (12) traffic marking coatings, whose limit was reduced from 150 to 100 grams of VOC/liter.

[1] The New York portion of the NYMA is composed of the five boroughs of New York City and the surrounding counties of Nassau, Suffolk, Westchester, Rockland, and the Shinnecock Indian Nation. *See* 40 CFR 81.333.

[2] The EPA provides the OTC Model Rule for AIM in the docket.

Creation of New Coating Categories

The proposed revision includes the following new coating categories: (1) aluminum roof coating, with a limit of 450 grams of VOC/liter; (2) basement specialty coating, with a limit of 400 grams of VOC/liter; (3) concrete/masonry sealer, with a limit of 100 grams of VOC/liter; (4) conjugated oil varnish, with a limit of 450 grams of VOC/liter; (5) driveway sealers, with a limit of 50 grams of VOC/liter; (6) reactive penetrating sealer, with a limit of 350 grams of VOC/liter; (7) reactive penetrating carbonate stone sealer, with a limit of 500 grams of VOC/liter; (8) stone consolidate, with a limit of 450 grams of VOC/liter; (9) tub and tile refinish, with a limit of 420 grams of VOC/liter; (10) waterproofing membranes, with a limit of 250 grams of VOC/liter; (11) wood coatings, with a limit of 275 grams of VOC/liter; and (12) Zinc-Rich Primer, with a limit of 340 grams of VOC/liter.

Elimination of Coating Categories

The proposed revision eliminates 15 coating categories without relaxation of the regulation because the VOC limit associated with the eliminated category is being absorbed by either a new or existing coating category: (1) antenna coatings (absorbed by industrial maintenance); (2) antifouling coatings (absorbed by industrial maintenance); (3) clear wood coatings/clear brushing lacquers (absorbed by wood coatings); (4) clear wood coatings/lacquers, including lacquer sanding sealers (absorbed by wood coatings); (5) clear wood coatings/sanding sealers, other than lacquer sanding sealers (absorbed by wood coatings); (6) clear wood coatings/varnishes (absorbed by wood coatings); (7) fire-retardant coatings/clear (absorbed by industrial maintenance); (8) fire-retardant coatings/opaque (absorbed by industrial maintenance); (9) flow coatings (absorbed by industrial maintenance); (10) quick-dry enamels (absorbed by flat, non-flat, and non-flat high gloss); (11) quick-dry primers, sealers, and undercoaters (absorbed by specialty primers, sealers, and undercoaters); (12) swimming pool repair and maintenance coatings (absorbed by swimming pool coatings); (13) temperature-indicator safety coatings (absorbed by industrial maintenance and concrete masonry sealer); (14) waterproofing sealers (absorbed by waterproofing membrane and basement specialty); and (15) waterproofing concrete/masonry sealers (absorbed by concrete masonry sealer and waterproofing membrane).

Revisions to the Quart Exemption for Bundling of Quart-Sized Containers

In the revised proposed part 205.1(b)(3), singular quart-sized containers continue to be exempt, but applicability of the regulation is expanded to include quart-sized containers that are packaged together in a bundle. Under part 205.1(b)(3)(i), the bundling of coating kits is addressed. The purpose of a coating kit is to be sold and marketed as a unit, which implies that multiple containers with a volume of one liter or less will be combined into one container; as such, the bundling of quart-sized containers for the purpose of a coating kit is not exempt and will need to comply with part 205. Accordingly, the proposed regulation addresses the concern that manufacturers and suppliers may circumvent the VOC limits in part 205 by selling the coatings in bundles of quart-sized containers inside a larger pail. The requirements for bundling quart-sized containers are expanded under part 205.1(b)(3)(i–iii), as follows: (1) under subpart (i), coating kits that typically are composed of multiple small containers, but are marketed as a single coating kit, must comply with part 205; (2) under subpart (ii), the use of a container that is not intended to hold a coating product is not allowed; and (3) under subpart (iii), floor coatings can be sold in any sized container and must comply with part 205.[3] Part 205 contains a few examples where bundling is permitted, as follows: (1) shipping pallets containing multiple quart-sized containers that are not sold as one unit; (2) multiple quart-sized containers that are shipped together and then placed on the retail shelf to be sold separately; (3) instances in which the quart-sized containers are bundled into a unified package that is marketed as a coating kit and sold and used as a coating kit. Part 205 contains at least one example where bundling is not allowed, as follows: packaging coating (*e.g.,* paint) in small disposable juice-like containers and placing them inside a larger pail to be sold as one unit. This scenario is specifically addressed by part 205.1(b)(3)(ii), ''packaging from which the coating cannot be applied,'' because juice-like containers are not designed to hold coatings, since it is difficult, if not impossible, to dip a paint brush into the container. Thus, excluding products contained in ''packaging from which the coating cannot be applied'' is intended to address potential circumvention of the regulation, which was raised as a concern in the public comments.

[3] Floor coatings are commonly sold in quart-sized (one liter or less) containers. Any sized floor coating container must adhere to the VOC content limits under part 205.3(a), including all other part 205 requirements.

EPA Review of State's Public Comments

The State conducted public outreach and worked with AIM stakeholders for over two years prior to the part 205 proposed rulemaking amendment. The leading public concerns covered the sell-through provisions and clarification on bundling of quart-sized containers. The sell-through provisions are in place for part 205 to help minimize the potential impact on small businesses and allow manufacturers to sell products compliant with the current standard through May 1, 2023. Sell-through of AIM coatings refers to a coating that was manufactured prior to the effective date specified for that coating category and may be sold, supplied, or offered for sale until May 1, 2023, so long as the coating complies with standards in effect at the time the coating was manufactured. The State extended the sell-through date of AIM coatings to May 1, 2023, as recommended by commenters, to allow for the sell-through of AIM products for two years and four months from the compliance date for the revised VOC content limits under part 205.3(a). The AIM sell-through provision will also help minimize the environmental and economic impact of disposing potentially usable products on the shelves sooner than they may need to be disposed of if not sold. Regarding the concern around bundling of quart-sized containers, *see* above section titled, ''Revisions to the quart exemption for bundling of quart-sized containers'' for a complete explanation. The EPA reviewed the public comments and is satisfied with the State's responses thereto.

IV. What is EPA's evaluation of subpart 200?

The current proposed rulemaking includes attendant revisions to 6 NYCRR part 200, Subpart 200.9, ''General Provisions,'' Table 1, ''Referenced material,'' which include the American Society for Testing Materials procedures, the South Coast Air Quality Management District methods, the Bay Area Air Quality Management District method, and other updated references to part 205. The EPA is satisfied that the revisions to section 200.9 are appropriate.

V. The EPA's Proposed Action

The EPA has evaluated New York's proposed submittal for consistency with the Clean Air Act, the EPA regulations,

and policy. The EPA is proposing to approve revisions to the New York State Implementation Plan (SIP) to include amendment to 6 NYCRR part 205, ''Architectural and Industrial Maintenance Coatings,'' and attendant revisions to 6 NYCRR part 200, ''General Provisions,'' with a state effective date of January 11, 2020.[4] Specifically, this rulemaking proposes to reduce the VOC limit for 12 coating categories, create VOC limits for 12 additional coating categories, eliminate 15 coating categories, and eliminate the quart exemption and bundling of small containers.

The proposed revisions will help the State to comply with federal requirements pertaining to attainment and maintenance of the ozone NAAQS. The EPA is soliciting public comments on the issues discussed in this document. These comments will be considered before taking final action.

VI. Incorporation by Reference

In this document, the EPA is proposing to include regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference revisions to 6 NYCRR part 205, ''Architectural and Industrial Maintenance coatings'' and 6 NYCRR part 200, subpart 200.9 ''General Provisions,'' Table 1, ''Referenced Materials,'' as described in paragraphs III through IV of this preamble. The EPA has made, and will continue to make, these materials generally available through *www.regulations.gov* and at the EPA Region 2 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

VII. Statutory and Executive Order Reviews

Under the Clean Air Act (CAA), 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, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. 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 proposed action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- 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 this action does not involve technical standards; and
- Does not provide the 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 proposed rulemaking, addressing New York's 6 NYCRR part 205, ''Architectural and Industrial Maintenance coatings,'' is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone, Volatile organic compounds.

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

Lisa Garcia,

Regional Administrator, Region 2.

[FR Doc. 2022–16975 Filed 8–10–22; 8:45 am]

BILLING CODE 6560–50–P

[4] Although the NYSDEC exercised its discretion not to enforce the proposed revision of the rule until July 1, 2022, due to the Governor's emergency declaration as a result of the COVID–19 pandemic, New York has confirmed that the enforcement discretion period concluded, and the rule is being enforced as of July 1, 2022. *See* the NYSDEC enforcement discretion bulletins, dated December 30, 2020, and December 23, 2021, as well as email correspondence from the NYSDEC's Robert D. Bielawa, dated July 8, 2022, in the docket.

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 648

[Docket No. 220728–0165]

RIN 0648–BL43

Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Amendment 22 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS proposes regulations to implement Amendment 22 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. Amendment 22 was developed by the Mid-Atlantic Fishery Management Council to revise summer flounder, scup, and black sea bass commercial and recreational sector allocations. Amendment 22 is intended to ensure that the best available science is used to determine commercial and recreational sector allocations.

DATES: Comments must be received by September 12, 2022.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2022–0042, by the following method:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter NOAA–NMFS–2022–0042 in the Search box. Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.

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).

Copies of Amendment 22, including the Environmental Assessment, the Regulatory Impact Review, and the Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) prepared in support of this action are available from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901. The supporting documents are also accessible via the internet at: *https://www.mafmc.org/s/SFSBSB_com_rec_allocation_EA-final_6-24-22.pdf.*

FOR FURTHER INFORMATION CONTACT: Emily Keiley, Fishery Policy Analyst, (978) 281–9116.

SUPPLEMENTARY INFORMATION:

Background

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission) cooperatively manage the summer flounder, scup, and black sea bass fisheries. The Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP) outlines the allocation of quota, for each species, between the commercial and recreational fisheries. This joint amendment reevaluates and proposes to revise the commercial and recreational sector allocations in the Summer Flounder, Scup, and Black Sea Bass FMP. This action was initiated in part to address the allocation-related impacts of the revised recreational catch and landings data provided by the Marine Recreational Information Program (MRIP). Specifically, this amendment considers:

1. Changing the current allocations between the commercial and recreational sectors for summer flounder, scup, and black sea bass;

2. Adding an option to transfer a portion of the allowable landings each year between the commercial and recreational sectors, in either direction, based on the needs of each sector; and

3. Adding the option for future additional changes to the commercial/recreational allocation and transfer provisions to be considered through an FMP addendum/framework action, as opposed to an amendment.

Proposed Commercial/Recreational Allocations

This action proposes to change the commercial and recreational allocations for summer flounder, scup, and black sea bass. The current commercial and recreational allocations for all three species were established in the mid-1990s. The allocations are based on historical proportions of landings (for summer flounder and black sea bass) and catch (for scup) from each sector. The current commercial/recreational allocations, and the years used to determine the allocation percentages (base years) are shown in Table 1.

TABLE 1—CURRENT COMMERCIAL/RECREATIONAL ALLOCATIONS

Species	Base years	Data type	Commercial allocation percentage (%)	Recreational allocation percentage (%)
Summer Flounder	1980–1989	Commercial and Recreational Landings	60	40
Scup	1988–1992	Commercial and Recreational Catch	78	22
Black Sea Bass	1983–1992	Commercial and Recreational Landings	49	51

In July 2018, MRIP released revised time series of catch and harvest estimates based on adjustments to its angler intercept methodology, which is used to estimate recreational catch rates, as well as changes to its effort estimation methodology, namely, a transition from a telephone-based effort survey to a mail-based effort survey for the private/rental boat and shore-based fishing modes. These revisions collectively resulted in higher recreational catch estimates compared to previous estimates, affecting the entire time series of data going back to 1981. The revised MRIP estimates were incorporated into the stock assessments for summer flounder in 2018 and for scup and black sea bass in 2019. This impacted the estimated stock biomass and resulting catch limits for these species.

The revised MRIP time series created a mismatch between the data that were used to set the allocations and the data currently used in management for setting catch limits. Changes to commercial catch data have also been made since the allocations were established. The allocation changes proposed in this amendment seek to ensure that the best available data is used to determine commercial and recreational sector allocations.

Amendment 22 includes a range of allocation alternatives, with options that would have maintained the current allocations and a variety of options to revise the allocations based on updated data using the same or modified ''base years'' (the time periods used to set the current allocations). The Council and Board ultimately voted to revise the allocations using the original base years updated with new data. This approach allows for consideration of fishery characteristics in years prior to influence by the commercial/recreational allocations, while also using the best scientific information available to understand the fisheries in those base years.

For all three species, these changes result in a shift in allocation from the commercial to recreational sector. However, because the summer flounder and black sea bass fisheries will be transitioning from landings-based to catch-based allocations, the current and revised allocations for those species are not directly comparable. The proposed commercial and recreational sector allocations are shown in Table 2.

TABLE 2—PROPOSED COMMERCIAL/RECREATIONAL ALLOCATIONS

Species	Base years	Data type	Commercial allocation percentage (%)	Recreational allocation percentage (%)
Summer Flounder	1980–1989	Commercial and Recreational Catch	55	45
Scup	1988–1992	Commercial and Recreational Catch	65	35
Black Sea Bass	1983–1992	Commercial and Recreational Catch	45	55

The Council and Board considered but did not recommend an option to ''phase in'' the allocation changes over a period of time. A phase-in period was deemed unnecessary given the relatively small magnitude of allocation changes.

Revised Framework Provisions

The Council and Board also approved an option to allow future changes to commercial/recreational allocations, annual quota transfers between sectors, and other measures addressed in the amendment to be made through framework actions.

They also considered, but did not recommend, an option to allow transfers of annual quota between the commercial and recreational sectors at this time.

Classification

Pursuant to section 304(b)(1)(A) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Assistant Administrator has determined that this proposed rule is consistent with the Summer Flounder, Scup, and Black Sea Bass FMP, other provisions of the MSA, and other applicable law, subject to further consideration after public comment.

This proposed rule has been determined to be not significant for purposes of Executive Order 12866.

An initial regulatory flexibility analysis (IRFA) was prepared, as required by section 603 of the Regulatory Flexibility Act (RFA). The IRFA describes the economic impact this proposed rule, if adopted, would have on small entities, and also determines ways to minimize these impacts. The IRFA incorporates sections of the preamble to this rule and analyses contained in Amendment 22 and its accompanying EA/RIR/IRFA. A copy of the complete analysis is available from the Council (see **ADDRESSES**). A summary of the IRFA follows.

Description of the Reasons Why Action by the Agency Is Being Considered and Statement of the Objectives of, and Legal Basis for, This Proposed Rule

This action proposes management measures for the commercial and recreational summer flounder, scup and black sea bass fisheries. This action is taken under the authority of the MSA and regulations at 50 CFR part 648. A complete description of the reasons why this action is being considered, and the objectives of and legal basis for this action, are contained in the preamble to this proposed rule and are not repeated here.

Description and Estimate of the Number of Small Entities to Which This Proposed Rule Would Apply

The entities (*i.e.,* the small and large businesses) that may be affected by this action include fishing operations with federal moratorium (commercial) permits and/or federal party/charter permits for summer flounder, scup, and/or black sea bass. Private recreational anglers are not considered ''entities'' under the RFA. For RFA purposes only, NMFS established a small business size standard for businesses, including their affiliates, whose primary industry is commercial fishing (50 CFR 200.2). A business primarily engaged in commercial fishing is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $11 million, for all its affiliated operations worldwide.

Vessel ownership data were used to identify all individuals who own fishing vessels. Vessels were then grouped according to common owners. The resulting groupings were then treated as entities, or affiliates, for purposes of identifying small and large businesses which may be affected by this action.

Commercial and recreational for-hire affiliates potentially regulated by this action include all those with valid commercial fishery permits for summer flounder, scup and back sea bass and any for-hire affiliates that reported landing summer flounder, scup or black sea bass in any year between 2018–2020, which is the most recent complete calendar year data. A total of 1,522 affiliates were identified as being potentially regulated by this action, 1,513 (99 percent) of which were identified as small businesses and 9 (1 percent) were identified as large businesses based on their average revenues in 2018–2020.

Of the total affiliates potentially regulated by this action, 455 affiliates reported that the majority of their revenues in 2020 came from for-hire fishing. Some of these affiliates may have also participated in commercial fishing. All 455 of these for-hire affiliates were categorized as small businesses based on their average 2018–2020 revenues. It is not possible to determine what proportion of their revenues came from fishing for an individual species. Nevertheless, given the popularity of summer flounder, scup, and black sea bass as recreational species, revenues generated from these species are likely important for many of these affiliates at certain times of the year.

Description of the Projected Reporting, Record-Keeping, and Other Compliance Requirements of This Proposed Rule

There are no proposed reporting, recordkeeping, or other compliance requirements.

Federal Rules Which May Duplicate, Overlap, or Conflict With This Proposed Rule

The proposed action does not duplicate, overlap, or conflict with other Federal rules.

Description of Significant Alternatives to the Proposed Action Which Accomplish the Stated Objectives of Applicable Statutes and Which Minimize Any Significant Economic Impact on Small Entities

The proposed action (*i.e.,* the suite of preferred alternatives) includes implementation of revised commercial/recreational quota allocation system for the summer flounder, scup, and black sea bass fisheries.

When considering the economic impacts of the alternatives under the Regulatory Flexibility Act, consideration should also be given to those non-preferred alternatives which would result in higher net benefits or lower costs to small entities while still achieving the stated objective of the action.

For summer flounder and scup, only the no action alternatives (alternatives 1a–4 and 1b–1, respectively) had greater positive expected impacts for the commercial sector than the preferred alternatives; however, those alternatives had greater negative impacts for the recreational sector than the preferred alternatives. For black sea bass, both the no action alternative (alternative 1c–4) and alternative 1c–5 were expected to have greater positive impacts for the commercial sector than the preferred alternative. However, as with summer flounder and scup, those alternatives had greater negative impacts for the recreational sector than the preferred alternative. In addition, alternative 1c–5 would have maintained a landings-based allocation for black sea bass, and the Council and Board supported switching to a catch-based allocation. Catch-based allocations were supported because they include both landings and discards, eliminate the current discard apportionment process, and hold each sector accountable to their own discards.

All alternatives that had a greater potential for positive impacts or a lesser potential for negative impacts to the recreational sector than the preferred alternatives had a greater magnitude of negative expected impacts for the commercial sector. The no action alternative, for all three species, did not meet the stated objectives given the notable changes in data that have occurred since these allocations were first established, and that leaving the allocations unchanged would not be based on the best scientific information available.

The non-preferred alternatives for phase-in, transfers, and frameworks/addenda are not expected to have notably different socioeconomic impacts than the preferred alternatives.

List of Subjects in 50 CFR Part 648

Fisheries, Fishing, Reporting and recordkeeping requirements.

Dated: August 4, 2022.

Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 648 is proposed to be amended as follows:

PART 648—FISHERIES OF THE NORTHEASTERN UNITED STATES

■ 1. The authority citation for part 648 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq.*

■ 2. In § 648.100, revise paragraph (a)(1) to read as follows:

§ 648.100 Summer flounder Annual Catch Limit (ACL).

(a) * * *

(1) *Sector allocations.* The commercial and recreational fishing sector ACLs will be established based on the allocations defined in the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP).

* * * * *

■ 3. In § 648.110, revise paragraph (a)(1) to read as follows:

§ 648.110 Summer flounder framework adjustments to management measures

(a) * * *

(1) *Adjustment process.* The MAFMC shall develop and analyze appropriate management actions over the span of at least two MAFMC meetings. The MAFMC must provide the public with advance notice of the availability of the recommendation(s), appropriate justification(s) and economic and biological analyses, and the opportunity to comment on the proposed adjustment(s) at the first meeting and prior to and at the second MAFMC meeting. The MAFMC's recommendations on adjustments or additions to management measures must come from one or more of the following categories: Adjustments within existing ABC control rule levels; adjustments to the existing MAFMC risk policy; introduction of new AMs, including sub-ACTs; minimum fish size; maximum fish size; gear restrictions; gear requirements or prohibitions; permitting restrictions; recreational possession limit; recreational seasons; closed areas; commercial seasons; commercial trip limits; commercial quota system including commercial quota allocation procedure and possible quota set asides to mitigate bycatch; recreational harvest limit; specification quota setting process; commercial/recreational allocations; transfer provisions between the commercial and recreational sectors; FMP Monitoring Committee composition and process; description and identification of essential fish habitat (and fishing gear management measures that impact EFH); description and identification of habitat areas of particular concern; regional gear restrictions; regional season restrictions (including option to split seasons); restrictions on vessel size (LOA and GRT) or shaft horsepower; operator permits; changes to the SBRM, including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, the process for prioritizing observer sea-day allocations, reports, and/or industry-funded observers or observer set aside programs; any other commercial or recreational management measures; any other management measures currently included in the FMP; and set aside quota for scientific research. Issues that require significant departures from previously contemplated measures or that are otherwise introducing new concepts may require an amendment of the FMP instead of a framework adjustment.

* * * * *

■ 4. § 648.120, revise paragraph (a)(1) to read as follows:

§ 648.120 Scup Annual Catch Limit (ACL).

(a) * * *

(1) *Sector allocations.* The commercial and recreational fishing sector ACLs will be based on the allocations defined in the Summer Flounder, Scup, and Black Sea Bass FMP.

* * * * *

■ 5. In § 648.130, revise paragraph (a)(1) to read as follows:

§ 648.130 Scup framework adjustments to management measures.

(a) * * *

(1) *Adjustment process.* The MAFMC shall develop and analyze appropriate management actions over the span of at least two MAFMC meetings. The MAFMC must provide the public with advance notice of the availability of the recommendation(s), appropriate justification(s) and economic and biological analyses, and the opportunity to comment on the proposed adjustment(s) at the first meeting and prior to and at the second MAFMC meeting. The MAFMC's recommendations on adjustments or additions to management measures must come from one or more of the following categories: Adjustments within existing ABC control rules; adjustments to the existing MAFMC risk policy; introduction of new AMs, including sub-ACTs; minimum fish size; maximum fish size; gear restrictions; gear restricted areas; gear requirements or prohibitions; permitting restrictions; recreational possession limits; recreational seasons; closed areas; commercial seasons; commercial trip limits; commercial quota system including commercial quota allocation procedure and possible quota set asides to mitigate bycatch; recreational harvest limits; annual specification quota setting process; commercial/recreational allocations; transfer provisions between the commercial and recreational sectors; FMP Monitoring Committee composition and process; description

and identification of EFH (and fishing gear management measures that impact EFH); description and identification of habitat areas of particular concern; regional gear restrictions; regional season restrictions (including option to split seasons); restrictions on vessel size (LOA and GRT) or shaft horsepower; operator permits; changes to the SBRM, including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, the process for prioritizing observer sea-day allocations, reports, and/or industry-funded observers or observer set aside programs; any other commercial or recreational management measures; any other management measures currently included in the FMP; and set aside quota for scientific research.

* * * * *

■ 6. In § 648.140, revise paragraph (a)(1) to read as follows:

§ 648.140 Black sea bass Annual Catch Limit (ACL).

(a) * * *

(1) *Sector allocations.* The commercial and recreational fishing sector ACLs will be based on the allocations defined in the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan.

* * * * *

[FR Doc. 2022–17107 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–22–P

Notices

Federal Register

Vol. 87, No. 154

Thursday, August 11, 2022

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

Forest Service

RIN 0596–AD36

Notice of Intent To Publish for Public Comment a Proposed Permanent Seasonal Order Closing Management Area 3.67 of the Thunder Basin National Grassland to Prairie Dog Hunting

AGENCY: Forest Service, Agriculture (USDA).

SUMMARY: The Forest Service, U.S. Department of Agriculture, is giving notice of its intent to publish for public comment a proposed permanent seasonal order closing Management Area 3.67 in the Douglas Ranger District of the Thunder Basin National Grassland, which covers approximately 42,000 acres in Campbell, Converse, and Weston Counties, Wyoming, from February 1 to August 15 to prairie dog hunting in advance of the public comment period for the proposed order. At the end of the advance notice period, the Forest Service will solicit public comments, as specified in this notice, on the proposed order.

DATES: Advance notice of the opportunity to provide public comment on a proposed permanent seasonal order prohibiting prairie dog hunting in Management Area 3.67 in the Douglas Ranger District of the Thunder Basin National Grassland (Grassland) is being provided until August 18, 2022. Beginning on August 18, 2022, the Forest Service will accept comments on the proposed order for 60 days. The notice of opportunity for public comment will be posted on the Medicine Bow-Routt National Forests and Thunder Basin National Grassland website at *https://www.fs.usda.gov/alerts/mbr/alerts-notices* and on the Forest Service's website at *www.fs.usda.gov/about-agency/regulations-policies.*

ADDRESSES: The proposed order and its justification are available on the Medicine Bow-Routt National Forests and Thunder Basin National Grassland website at *https://www.fs.usda.gov/alerts/mbr/alerts-notices* and on the Forest Service's website at *www.fs.usda.gov/about-agency/regulations-policies* or can be viewed at the Douglas Ranger District, 2250 East Richards Street, Douglas, WY 82633–8922. Please call ahead at 307–358–4690 to ensure access.

FOR FURTHER INFORMATION CONTACT: Rob Robertson, Douglas District Ranger, 307–358–4690, *robert.robertson@usda.gov.* Individuals who use telecommunications devices for the hearing-impaired (TDD) may call the Federal Relay Service (FRS) at 800–877–8339, 24 hours a day, every day of the year, including holidays.

SUPPLEMENTARY INFORMATION:

Advance Notice and Public Comment Procedures

Section 4103 of the John D. Dingell, Jr., Conservation, Management, and Recreation Act (Dingell Act) (Pub L. 116–9, Title IV (Sportsmen's Access and Related Matters)) requires that the Secretary of Agriculture, acting through the Chief of the Forest Service, provide public notice and opportunity to comment before permanently or temporarily closing any National Forest System lands to hunting, fishing, or recreational shooting. Section 4103 of the Dingell Act applies to the proposed permanent seasonal order prohibiting prairie dog hunting in Management Area 3.67 in the Douglas Ranger District of the Thunder Basin National Grassland from February 1 to August 15. The public notice and comment process in section 4103(b)(2) of the Dingell Act requires the Secretary to publish in the **Federal Register** an advance notice of intent of a proposed permanent or temporary hunting, fishing, or recreational shooting order in advance of the public comment period for the proposed order. This notice meets the requirement to publish a notice of intent in the **Federal Register** in advance of the public comment period for the proposed order. Following the notice period, section 4103(b)(2) of the Dingell Act requires an opportunity for public comment on the proposed order. The public comment period must be at least 60 days for a proposed permanent order. Beginning on August 18, 2022, the Forest Service will accept public comments on the proposed order for 60 days. The notice of opportunity for public comment will be posted on the Medicine Bow-Routt National Forests and Thunder Basin National Grassland website at *https://www.fs.usda.gov/alerts/mbr/alerts-notices* and at the Forest Service's website at *www.fs.usda.gov/about-agency/regulations-policies.*

Section 4103(b)(2) of the Dingell Act requires the Forest Service to respond to public comments received on the proposed order before issuing a final order, including an explanation of how any significant issues raised by the comments were resolved and, if applicable, how resolution of those issues affected the proposed order or the justification for the proposed order. The response to comments on the proposed order, justification for the final order, and the issuance of the final order will all be posted on the Forest Service's website at *https://www.fs.usda.gov/alerts/mbr/alerts-notices* and *www.fs.usda.gov/about-agency/regulations-policies.*

Background and Need for the Proposed Permanent Order

The proposed order would implement the land management plan direction in the Thunder Basin National Grassland 2020 Plan Amendment. The shooting of black-tailed prairie dogs is a common recreational activity on the Grassland. Grassland land management direction for Management Area 3.67 provides for maintenance of short-stature vegetation communities, including prairie dog colony ecosystems. The proposed permanent seasonal order would prohibit prairie dog hunting in Management Area 3.67 from February 1 to August 15 to protect at-risk animal species associated with black-tailed prairie dog colonies during breeding, nesting, and brood-rearing seasons. Grassland land management direction does not limit prairie dog hunting at any other locations or times on the Grassland.

The proposed permanent seasonal order, map of the area covered by the proposed order, and justification for the proposed order are available on the Medicine Bow-Routt National Forests and Thunder Basin National Grassland website at *https://www.fs.usda.gov/*

alerts/mbr/alerts-notices and on the Forest Service's website at *www.fs.usda.gov/about-agency/regulations-policies.*

Dated: August 5, 2022.

Deborah Hollen,

Acting Associate Deputy Chief, National Forest System.

[FR Doc. 2022–17269 Filed 8–10–22; 8:45 am]

BILLING CODE 3411–15–P

DEPARTMENT OF COMMERCE

Economic Development Administration

Notice of Petitions by Firms for Determination of Eligibility To Apply for Trade Adjustment Assistance

AGENCY: Economic Development Administration, U.S. Department of Commerce.

ACTION: Notice and opportunity for public comment.

SUMMARY: The Economic Development Administration (EDA) has received petitions for certification of eligibility to apply for Trade Adjustment Assistance from the firms listed below. Accordingly, EDA has initiated investigations to determine whether increased imports into the United States of articles like or directly competitive with those produced by each of the firms contributed importantly to the total or partial separation of the firms' workers, or threat thereof, and to a decrease in sales or production of each petitioning firm.

SUPPLEMENTARY INFORMATION:

LIST OF PETITIONS RECEIVED BY EDA FOR CERTIFICATION OF ELIGIBILITY TO APPLY FOR TRADE ADJUSTMENT ASSISTANCE

[7/9/2022 through 7/29/2022]

Firm name	Firm address	Date received by EDA	Date accepted for investigation	Product(s)
Action Plastics, Inc	3995 Commercial Avenue, Northbrook, IL 60062.	6/30/2022	7/12/2022	The firm manufactures miscellaneous plastic products.
Real McCoy Teas Company d/b/a Kombucha Town.	210 East Chestnut Street, Bellingham, WA 98225.	6/30/2022	7/14/2022	The firm produces kombucha and kombucha-infused sparkling waters.
P. Graham Dunn, Inc	630 Henry Street, Dalton, OH 44618.	6/29/2022	7/22/2022	The firm manufactures wood home décor products.
Full Throttle Machine Works, Inc	1848 Suntide Road, Corpus Christi, TX 78409.	6/30/2022	7/25/2022	The firm manufactures valves and other flow control components.
Rainbow Leather, Inc	1415 112th Street, College Point, NY 11356.	6/30/2022	7/28/2022	The firm manufactures printed and embossed leather products.

Any party having a substantial interest in these proceedings may request a public hearing on the matter. A written request for a hearing must be submitted to the Trade Adjustment Assistance Division, Room 71030, Economic Development Administration, U.S. Department of Commerce, Washington, DC 20230, no later than ten (10) calendar days following publication of this notice. These petitions are received pursuant to section 251 of the Trade Act of 1974, as amended.

Please follow the requirements set forth in EDA's regulations at 13 CFR 315.8 for procedures to request a public hearing. The Catalog of Federal Domestic Assistance official number and title for the program under which these petitions are submitted is 11.313, Trade Adjustment Assistance for Firms.

Bryan Borlik,

Director.

[FR Doc. 2022–17254 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–WH–P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[S–138–2022]

Foreign-Trade Zone 167—Brown County, Wisconsin, Application for Subzone Burger Boat Company, Manitowoc, Wisconsin

An application has been submitted to the Foreign-Trade Zones (FTZ) Board by Brown County, Wisconsin, grantee of FTZ 167, requesting subzone status for the facility of Burger Boat Company, located in Manitowoc, Wisconsin. The application was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a–81u), and the regulations of the FTZ Board (15 CFR part 400). It was formally docketed on August 8, 2022.

The proposed subzone (7.4 acres) is located at 1811 Spring Street, Manitowoc, Wisconsin. A notification of proposed production activity has been submitted and is being processed under 15 CFR 400.37 (Doc. B–30–2022). The proposed subzone would be subject to the existing activation limit of FTZ 167.

In accordance with the FTZ Board's regulations, Elizabeth Whiteman of the FTZ Staff is designated examiner to review the application and make recommendations to the Executive Secretary.

Public comment is invited from interested parties. Submissions shall be addressed to the FTZ Board's Executive Secretary and sent to: *ftz@trade.gov.* The closing period for their receipt is September 20, 2022. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period to October 5, 2022.

A copy of the application will be available for public inspection in the ''Online FTZ Information Section'' section of the FTZ Board's website, which is accessible via *www.trade.gov/ftz.*

For further information, contact Elizabeth Whiteman at *Elizabeth.Whiteman@trade.gov.*

Dated: August 8, 2022.

Andrew McGilvray,

Executive Secretary.

[FR Doc. 2022–17277 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[B–3–2022]

Foreign-Trade Zone (FTZ) 31—Granite City, Illinois; Authorization of Production Activity; M.M.O. Companies, Inc. (Disassembly of Firearms and Ammunition); Mascoutah, Edwardsville and Collinsville, Illinois

On February 7, 2022, America's Central Port District, grantee of FTZ 31, submitted a notification of proposed production activity to the FTZ Board on behalf of M.M.O. Companies, Inc., within Subzone 31E, in Mascoutah, Edwardsville and Collinsville, Illinois.

The notification was processed in accordance with the regulations of the FTZ Board (15 CFR part 400), including notice in the **Federal Register** inviting public comment (87 FR 8562–8563, February 15, 2022). On August 8, 2022, the applicant was notified of the FTZ Board's decision that no further review of the activity is warranted at this time. The production activity described in the notification was authorized, subject to the FTZ Act and the FTZ Board's regulations, including Section 400.14.

Dated: August 8, 2022.

Andrew McGilvray,

Executive Secretary.

[FR Doc. 2022–17278 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[S–137–2022]

Foreign-Trade Zone 61—San Juan, Puerto Rico; Application for Expansion of Subzone 61Z; Oldach Associates, LLC; Cataño, Puerto Rico

An application has been submitted to the Foreign-Trade Zones Board (the Board) by the Department of Economic Development and Commerce, grantee of FTZ 61, requesting an expansion of Subzone 61Z on behalf of Oldach Associates, LLC. The application was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a–81u), and the regulations of the Board (15 CFR part 400). It was formally docketed on August 8, 2022.

Subzone 61Z was approved on June 9, 2020 (S–59–2020, 85 FR 35899, June 12, 2020). The subzone consists of the following site: *Site 1* (2.4896 acres)—#427 PR–869, corner of D Street, Las Palmas Industrial Park, Cataño.

The applicant is requesting authority to expand the subzone's existing site to include an adjacent parcel (0.7046 acres) located at PR–869, Street 4, Building 2, Las Palmas Industrial Park, Cataño. The expanded subzone would be subject to the existing activation limit of FTZ 61. No authorization for production activity has been requested at this time.

In accordance with the FTZ Board's regulations, Camille Evans of the FTZ Staff is designated examiner to review the application and make recommendations to the Executive Secretary.

Public comment is invited from interested parties. Submissions shall be addressed to the FTZ Board's Executive Secretary and sent to: *ftz@trade.gov.* The closing period for their receipt is September 20, 2022. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period to October 5, 2022.

A copy of the application will be available for public inspection in the ''Online FTZ Information Section'' section of the FTZ Board's website, which is accessible via *www.trade.gov/ftz.*

For further information, contact Camille Evans at *Camille.Evans@trade.gov.*

Dated: August 8, 2022.

Andrew McGilvray,

Executive Secretary.

[FR Doc. 2022–17279 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

United States Mexico Canada Agreement (USMCA), Article 10.12; Binational Panel Review: Notice of Completion of Panel Review

AGENCY: United States Section, USMCA Secretariat, International Trade Administration, Department of Commerce.

ACTION: Notice of completion of panel review.

SUMMARY: In accordance with Rules 82 and 84 of the USMCA *Rules of Procedure for Article 10.12 (Binational Panel Review),* the *Certain Gypsum Board, Sheet, or Panel Originating in or Exported from the United States of America* (Secretariat File Number: CDA–USA–2020–10.12–01) Panel Review was completed and the panelists were discharged from their duties effective July 28, 2022.

FOR FURTHER INFORMATION CONTACT: Vidya Desai, United States Secretary, NAFTA Secretariat, Room 2061, 1401 Constitution Avenue NW, Washington, DC 20230, 202–482–5438.

SUPPLEMENTARY INFORMATION: Article 10.12 of the USMCA provides a dispute settlement mechanism involving trade remedy determinations issued by the Government of the United States, the Government of Canada, and the Government of Mexico. Following a Request for Panel Review, a Binational Panel is composed to review the trade remedy determination being challenged. For the complete USMCA *Rules of Procedure for Article 10.12 (Binational Panel Reviews),* please see *https://can-mex-usa-sec.org/secretariat/agreement-accord-acuerdo/usmca-aceum-tmec/rules-regles-reglas/article-article-articulo_10_12.aspx?lang=eng.*

Dated: August 8, 2022.

Vidya Desai,

U.S. Secretary, USMCA Secretariat.

[FR Doc. 2022–17253 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–GT–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC252]

New England Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The New England Fishery Management Council (Council) is scheduling a public meeting of its Monkfish Advisory Panel to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). This meeting will be held in-person with a webinar option. Recommendations from this group will be brought to the full Council for formal consideration and action, if appropriate.

DATES: This hybrid meeting will be held on Tuesday, August 30, 2022, at 8:30 a.m.

ADDRESSES:

Meeting address: The meeting will be held at the Hilton Garden Inn, 100 Boardman Street, Boston, MA 02129; phone: (617) 567–6789.

Webinar registration URL information: *https://attendee.gotowebinar.com/register/6526743228584193806.*

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

FOR FURTHER INFORMATION CONTACT: Thomas A. Nies, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

SUPPLEMENTARY INFORMATION:

Agenda

The Monkfish Advisory Panel will receive the revised draft Monkfish Fishery Performance Report and have any further discussion before finalizing the report. The panel will also receive a progress update on developing 2023–25 specifications and other management measures (regarding Days-At-Sea, possession limits, and gillnet mesh size) and make any further recommendations to the committee on alternatives. They will also develop monkfish Priority recommendations and bring to the committee for 2023 Council management priorities regarding monkfish. This could include an action to address the NOAA Fisheries Draft Action Plan to Reduce Atlantic Sturgeon Bycatch in Federal Large Mesh Gillnet Fisheries. Other business may be discussed, as necessary.

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 Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Thomas A. Nies, Executive Director, at (978) 465–0492, at least 5 days prior to the date. This meeting will be recorded. Consistent with 16 U.S.C. 1852, a copy of the recording is available upon request.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 5, 2022.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2022–17239 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC253]

New England Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The New England Fishery Management Council (Council) is scheduling a public meeting of its Monkfish Committee to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). This meeting will be held in-person with a webinar option. Recommendations from this group will be brought to the full Council for formal consideration and action, if appropriate.

DATES: This hybrid meeting will be held on Tuesday, August 30, 2022, at 1 p.m.

ADDRESSES:

Meeting address: The meeting will be held at the Hilton Garden Inn, 100 Boardman Street, Boston, MA 02129; phone: (617) 567–6789.

Webinar registration URL information: https://attendee.gotowebinar.com/register/831629238471952143.

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

FOR FURTHER INFORMATION CONTACT: Thomas A. Nies, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

SUPPLEMENTARY INFORMATION:

Agenda

The Monkfish Committee will receive the revised draft Monkfish Fishery Performance Report and have any further discussion before finalizing the report. The Committee will also receive a progress update on developing 2023–25 specifications and other management measures (regarding Days-At-Sea, possession limits, and gillnet mesh size) and make any further recommendations to the Committee on alternatives. They will also develop monkfish priority recommendations for 2023 Council management priorities regarding monkfish. This could include an action to address the NOAA Fisheries Draft Action Plan to Reduce Atlantic Sturgeon Bycatch in Federal Large Mesh Gillnet Fisheries. Other business may be discussed, as necessary.

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 Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Thomas A. Nies, Executive Director, at (978) 465–0492, at least 5 days prior to the date. This meeting will be recorded. Consistent with 16 U.S.C. 1852, a copy of the recording is available upon request.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 5, 2022.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2022–17238 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC257]

Marine Mammals and Endangered Species

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of permits, permit amendments, and permit modifications.

SUMMARY: Notice is hereby given that permits, permit amendments, and permit modifications have been issued to the following entities under the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA), as applicable.

ADDRESSES: The permits and related documents are available for review upon written request via email to *NMFS.Pr1Comments@noaa.gov.*

FOR FURTHER INFORMATION CONTACT: Carrie Hubard (Permit Nos. 19655–02 and 26394) and Erin Markin, Ph.D., (Permit No. 19496–05); at (301) 427–8401.

SUPPLEMENTARY INFORMATION: Notices were published in the **Federal Register**

on the dates listed below that requests for a permit, permit amendment, or permit modification had been submitted by the below-named applicants. To locate the **Federal Register** notice that announced our receipt of the application and a complete description of the activities, go to *www.federalregister.gov* and search on the permit number provided in Table 1 below.

TABLE 1—ISSUED PERMITS, PERMIT AMENDMENTS, AND PERMIT MODIFICATIONS

Permit No.	RTID	Applicant	Previous **Federal Register** notice	Issuance date
19496–05	0648–XC062	Mariana Fuentes, Ph.D., Florida State University, 3263 Foley Drive, Tallahassee, FL 32309.	87 FR 31985; May 26, 2022	7/19/2022
19655–02	0648–XF085	Adam Pack, Ph.D., University of Hawaii at Hilo, 200 West Kawili Street, Hilo, HI 96720.	83 FR 17655; April 23, 2018	7/26/2022
26394	0648–XC040	Pangolin Pictures, 1650 Broadway, Suite 1208, New York, NY 10019 (Responsible Party: Kevin Bachar).	87 FR 31213; May 23, 2022	7/8/2022

In compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), a final determination has been made that the activities proposed are categorically excluded from the requirement to prepare an environmental assessment or environmental impact statement.

As required by the ESA, as applicable, issuance of these permit was based on a finding that such permits: (1) were applied for in good faith; (2) will not operate to the disadvantage of such endangered species; and (3) are consistent with the purposes and policies set forth in Section 2 of the ESA.

Authority: The requested permits have been issued under the MMPA of 1972, as amended (16 U.S.C. 1361 *et seq.*), the regulations governing the taking and importing of marine mammals (50 CFR part 216), the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*), and the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR parts 222–226), as applicable.

Dated: August 8, 2022.

Julia M. Harrison,

Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 2022–17249 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

Meeting of the Advisory Committee on Commercial Remote Sensing

ACTION: Notice of meeting.

SUMMARY: The Advisory Committee on Commercial Remote Sensing (''ACCRES'') will meet for 1 full-day meeting on August 24, 2022.

DATES: The meeting is scheduled as follows August 24, 2022, from 9:00 a.m.–3:00 p.m. Eastern Daylight Time (EDT).

ADDRESSES: The meeting will be a virtual event all participants will attend virtually via GoToWebinar.

FOR FURTHER INFORMATION CONTACT: Alan Robinson, NOAA/NESDIS/CRSRA, 1335 East-West Highway, G–101, Silver Spring, Maryland 20910; 301–704–5882 or *CRSRA@noaa.gov.*

SUPPLEMENTARY INFORMATION: As required by Section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. App. (FACA) and its implementing regulations, *see* 41 CFR 102–3.150, notice is hereby given of the meeting of ACCRES. ACCRES was established by the Secretary of Commerce (Secretary) on May 21, 2002, to advise the Secretary through the Under Secretary of Commerce for Oceans and Atmosphere on matters relating to the U.S. commercial remote sensing space industry and on the National Oceanic and Atmospheric Administration's activities to carry out the responsibilities of the Department of Commerce set forth in the National and Commercial Space Programs Act of 2010 (51 U.S.C. 60101 *et seq.*).

Purpose of the Meeting and Matters To Be Considered

The meeting will be open to the public pursuant to Section 10(a)(1) of the FACA. During the meeting, the Committee will hear Commercial Satellite Imaging regulations from International Regulators, and from US government leadership on their vision for the development of the Remote Sensing industry.

Additional Information and Public Comments

The meeting will be held over one full day and will be conducted via GoToWebinar. Please register for the meeting through the link: *https://attendee.gotowebinar.com/rt/4789727055944349455.* This event is accessible to individuals with disabilities. For all other special accommodation requests, please contact CRSRA*@noaa.gov.* This webinar is an NOAA ACCRES public meeting and will be recorded and transcribed. If you have public comments, you acknowledge you may be recorded and are aware you can opt-out of the meeting. Both the meeting minutes and presentations will be posted on the ACCRES website. The agenda, speakers, and times are subject to change. For updates, please check online at *https://www.nesdis.noaa.gov/CRSRA/accresMeetings.html.*

Public comments are encouraged. Individuals or groups who would like to submit advance written comments, please email them to *Alan.Robinson@noaa.gov* and *CRSRA@noaa.gov.*

Stephen M. Volz,

Assistant Administrator for Satellite and Information Services.

[FR Doc. 2022–17213 Filed 8–10–22; 8:45 am]

BILLING CODE 3510–HR–P

COMMODITY FUTURES TRADING COMMISSION

Renewal of the Agricultural Advisory Committee

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice of renewal.

SUMMARY: The Commodity Futures Trading Commission (Commission) is publishing this notice to announce the

renewal of the Agricultural Advisory Committee (AAC). The Commission has determined that the renewal of the AAC is necessary and in the public's interest, and the Commission has consulted with the General Services Administration's Committee Management Secretariat regarding the AAC's renewal.

FOR FURTHER INFORMATION CONTACT: Brigitte C. Weyls, AAC Designated Federal Officer, at 312–596–0547 or *bweyls@cftc.gov.*

SUPPLEMENTARY INFORMATION: The AAC's objectives and scope of activities are to assist the Commission in assessing issues affecting agricultural producers; consumers; processors; lenders; other major market participants, including derivatives intermediaries, buy-side representatives, and exchanges; regulators; and others interested in or affected by the agricultural derivatives markets through public meetings, and Committee reports and recommendations. The AAC will operate for two years from the date of renewal unless the Commission directs that the AAC terminate on an earlier date. A copy of the AAC renewal charter has been filed with the Commission; the Senate Committee on Agriculture, Nutrition and Forestry; the House Committee on Agriculture; the Library of Congress; and the General Services Administration's Committee Management Secretariat. A copy of the renewal charter will be posted on the Commission's website at *www.cftc.gov.*

(Authority: 5 U.S.C. App. II)

Dated: August 8, 2022.

Christopher Kirkpatrick,

Secretary of the Commission.

[FR Doc. 2022–17266 Filed 8–10–22; 8:45 am]

BILLING CODE 6351–01–P

CONSUMER FINANCIAL PROTECTION BUREAU

[Docket No. CFPB–2022–0054]

Agency Information Collection Activities: Comment Request

AGENCY: Consumer Financial Protection Bureau.

ACTION: Notice and request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (PRA), the Consumer Financial Protection Bureau (CFPB or Bureau) requests the extension of the Office of Management and Budget's (OMB's) approval of the existing information collection titled ''Joint Standards and CFPB Standards for Assessing the Diversity Policies and Practices'' approved under OMB Control Number 3170–0060.

DATES: Written comments are encouraged and must be received on or before September 12, 2022 to be assured of consideration.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function. In general, all comments received will become public records, including any personal information provided. Sensitive personal information, such as account numbers or Social Security numbers, should not be included.

FOR FURTHER INFORMATION CONTACT: Documentation prepared in support of this information collection request is available at *www.regulations.gov.* Requests for additional information should be directed to Anthony May, Paperwork Reduction Act Officer, at (202) 841–0544, or email: *CFPB_PRA@cfpb.gov.* If you require this document in an alternative electronic format, please contact *CFPB_Accessibility@cfpb.gov.* Please do not submit comments to these email boxes.

SUPPLEMENTARY INFORMATION:

Title of Collection: Joint Standards and CFPB Standards for Assessing the Diversity Policies and Practices.

OMB Control Number: 3170–0060.

Type of review: Revision of a currently approved information collection.

Affected Public: Private sector: businesses or other for-profits.

Estimated Number of Respondents: 1,250.

Estimated Total Annual Burden Hours: 9,375.

Abstract: Section 342 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) required the Office of the Comptroller of the Currency (OCC), Board of Governors of the Federal Reserve System (Board), Federal Deposit Insurance Corporation (FDIC), National Credit Union Administration (NCUA), Consumer Financial Protection Bureau (CFPB), and Securities and Exchange Commission (SEC) (together, Agencies and separately, Agency) each to establish an Office of Minority and Women Inclusion (OMWI) to be responsible for all matters of the Agency relating to diversity in management, employment, and business activities. The Dodd-Frank Act also instructed each OMWI Director to develop standards for assessing the diversity policies and practices of entities regulated by the Agency. The Agencies worked together to develop joint standards (Joint Standards). On June 10, 2015, they jointly published in the **Federal Register** the ''Final Interagency Policy Statement Establishing Joint Standards for Assessing the Diversity Policies and Practices of Entities Regulated by the Agencies.'' The Agencies will use the information provided to them to monitor progress and trends in the financial services industry regarding diversity and inclusion in employment and contracting activities as well as to identify and highlight those policies and practices that have been successful. The primary Federal financial regulator will share information with other Agencies (when appropriate) to support coordination of efforts and to avoid duplication. The Agencies may publish information disclosed to them (such as best practices) in any form that does not identify a particular entity or individual or disclose confidential business information. Additionally, the CFPB is required to ensure that contractors that do business with the CFPB are making a good faith effort to diversify their workforces. The CFPB requires contractors to submit information related to their workforce and workplace policies.

Request for Comments: The Bureau published a 60-day **Federal Register** notice on June 2, 2022 (87 FR 33473) under Docket Number: CFPB–2022–0034. The Bureau is soliciting comments on: (a) Whether the collection of information is necessary for the proper performance of the functions of the Bureau, including whether the information will have practical utility; (b) The accuracy of the Bureau's estimate of the burden of the collection of information, including the validity of the methods and the 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 on respondents, including through the use of automated collection techniques or other forms of information technology. Comments submitted in response to this notice will be submitted to OMB as part of its review of this request. All comments will become a matter of public record.

Anthony May,

Paperwork Reduction Act Officer, Consumer Financial Protection Bureau.

[FR Doc. 2022–17261 Filed 8–10–22; 8:45 am]

BILLING CODE 4810–AM–P

CONSUMER FINANCIAL PROTECTION BUREAU

[Docket No. CFPB–2022–0055]

Agency Information Collection Activities: Comment Request

AGENCY: Consumer Financial Protection Bureau.

ACTION: Notice and request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (PRA), the Consumer Financial Protection Bureau (Bureau or CFPB) is requesting to extend the Office of Management and Budget's (OMB's) approval for an existing information collection titled ''Equal Access to Justice Act'' approved under OMB Control Number 3170–0040.

DATES: Written comments are encouraged and must be received on or before October 11, 2022 to be assured of consideration.

ADDRESSES: You may submit comments, identified by the title of the information collection, OMB Control Number (see below), and docket number (see above), by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments
- *Email: PRA_Comments@cfpb.gov.* Include Docket No. CFPB–2022–0055 in the subject line of the email.
- *Mail/Hand Delivery/Courier:* Comment Intake, Consumer Financial Protection Bureau (Attention: PRA Office), 1700 G Street NW, Washington, DC 20552.

Please note that due to circumstances associated with the COVID–19 pandemic, the Bureau discourages the submission of comments by mail, hand delivery, or courier. Please note that comments submitted after the comment period will not be accepted. In general, all comments received will become public records, including any personal information provided. Sensitive personal information, such as account numbers or Social Security numbers, should not be included.

FOR FURTHER INFORMATION CONTACT: Documentation prepared in support of this information collection request is available at *www.regulations.gov.* Requests for additional information should be directed to Anthony May, PRA Officer, at (202) 841–0544, or email: *CFPB_PRA@cfpb.gov.* If you require this document in an alternative electronic format, please contact *CFPB_Accessibility@cfpb.gov.* Please do not submit comments to these email boxes.

SUPPLEMENTARY INFORMATION:

Title of Collection: Equal Access to Justice Act.

OMB Control Number: 3170–0040.

Type of Review: Extension of a currently approved collection.

Affected Public: Individuals or households.

Estimated Number of Respondents: 3.

Estimated Total Annual Burden Hours: 15.

Abstract: The Equal Access to Justice Act (or the Act) provides for payment of fees and expenses to eligible parties who have prevailed against the Bureau in certain administrative proceedings. In order to obtain an award, the statute and associated regulations (12 CFR part 1071) require the filing of an application that shows that the party is a prevailing party and is eligible to receive an award under the Act. The Bureau's regulations implementing the Act require the collection of information related to the application for an award in 12 CFR part 1071, subparts B, C.

This is a routine request for OMB to renew its approval of the collections of information currently approved under this OMB control number. The Bureau is not proposing any new or revised collections of information pursuant to this request.

Request for Comments: Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the Bureau, including whether the information will have practical utility; (b) The accuracy of the Bureau's estimate of the burden of the collection of information, including the validity of the methods and the 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 on respondents, including through the use of automated collection techniques or other forms of information technology. Comments submitted in response to this notice will be summarized and/or included in the request for OMB's approval. All comments will become a matter of public record.

Anthony May,

Paperwork Reduction Act Officer, Consumer Financial Protection Bureau.

[FR Doc. 2022–17262 Filed 8–10–22; 8:45 am]

BILLING CODE 4810–AM–P

ELECTION ASSISTANCE COMMISSION

Agency Information Collection Activities: Testing and Certification Forms

AGENCY: U.S. Election Assistance Commission (EAC).

ACTION: Notice; request for comment.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act of 1995 (PRA), the U.S. Election Assistance Commission (EAC) gives notice that it is requesting from the Office of Management and Budget (OMB) approval for the information collection of four Testing and Certification forms.

DATES: Comments must be received by 5 p.m. Eastern on Friday, September 10, 2022.

ADDRESSES: To view the proposed forms, see: *https://www.regulations.gov* (docket IDs: EAC–2022–0001, EAC–2022–0002, EAC–2022–0003, EAC–2022–0004).

Written comments on the proposed information collection can also be sent to the U.S. Election Assistance Commission, 633 3rd Street NW, Suite 200, Washington, DC 20001, Attn: Testing & Certification.

FOR FURTHER INFORMATION CONTACT: Paul Aumayr, Senior Election Technology Specialist, Testing and Certification Program, Washington, DC (301)–563–3919. Email: *testingcertification@eac.gov.*

All requests and submissions should be identified by the title of the information collection.

SUPPLEMENTARY INFORMATION:

Title and OMB Number

Manufacturer Registration, Application for Testing, Voting System Anomaly Reporting and Root Cause Analysis

OMB Number Pending. 87 FR 30930 (Page 30930–30931, Document Number 2022–10900)

Purpose

This proposed information collection was previously published in the **Federal Register** on Friday, May 20, 2022 and allowed 60 days for public comment. In compliance with Section 3507(a)(1)(D) of the Paperwork Reduction Act (PRA) of 1995, EAC is submitting to the Office of Management and Budget (OMB) a request for review and approval of the information collection described. The purpose of this notice is to allow an additional 30 days for public comment from all interested individuals and organizations.

The EAC Testing and Certification Program assists state and local election officials by providing voting machine testing and certification. This program is a requirement of the Help America Vote Act (HAVA) of 2002, legislation that created the EAC and mandated that the Commission provide certification,

decertification, and recertification of voting systems.

Public Comments

We are soliciting public comments to permit the EAC to:

• Evaluate whether the proposed information collection is necessary and sufficient for the proper functions of Testing and Certification Program.

• Enhance the quality, utility, and clarity of the information to be collected.

• Minimize the reporting burden on those who are to respond, including the use of information technology.

Please note that comments submitted in response to this Notice are public record. Before including any detailed personal information, you should be aware that your comments as submitted, including your personal information, will be available for public review.

Respondents: Voting System Manufacturers, State and Local governments.

Annual Reporting Burden

ANNUAL BURDEN ESTIMATES

Instrument	Estimated number of respondents	Total number of responses per year	Average burden hours per response	Annual burden hours
Manufacturer Registration Form	1	1	2	2
Voting System Certification Application Form	5	5	2	10
Field Anomaly Reporting Form	5	5	2	10
Voting System Root Cause Analysis	5	5	30	150
Total		26		172

The estimated cost of the annualized cost of this burden is: $14,876.

Camden Kelliher,

Associate Counsel, U.S. Election Assistance Commission.

[FR Doc. 2022–17251 Filed 8–10–22; 8:45 am]

BILLING CODE P

DEPARTMENT OF ENERGY

Request for Information To Inform the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization; Reopening of Comment Period

AGENCY: National Energy Technology Laboratory (NETL), Department of Energy (DOE).

ACTION: Request for information (RFI); reopening of public comment period.

SUMMARY: On June 10, 2022, NETL, on behalf of DOE, issued a Request for Information in the **Federal Register** seeking public comment on the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization (Interagency Working Group). The information requested will help inform the efforts of the Interagency Working Group. Comments were due by August 9, 2022. Prior to the end of the comment period for the request for information, DOE received requests from stakeholders in that region to extend the public comment period to focus on recovery due to severe flooding in Eastern Kentucky. The Interagency Working Group is reopening its public comment period by 30 days. Public comments will now be accepted through September 8, 2022.

DATES: Interested persons are invited to submit responses by September 8, 2022.

ADDRESSES: Comments can be submitted via the internet at: *https://energycommunities.gov/comment.*

FOR FURTHER INFORMATION CONTACT: Dr. Briggs White, Deputy Executive Director, Energy Communities IWG, (412) 386–7546.

Questions may be addressed to *briggswhite@energycommunities.gov.*

SUPPLEMENTARY INFORMATION: NETL, on behalf of DOE, published a Request for Information (RFI) seeking input from the public on the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization (Interagency Working Group). 87 FR 35535. Specifically, the RFI requested comments on the challenges facing energy communities, measures to address those needs, and recommendations for the Federal Government to consider. DOE requested submission of written comments by August 9, 2022.

On July 29, the Blue Green Alliance shared that several stakeholders in Appalachia would like to see the comment deadline delayed given that they are dealing with the flooding—they did not request a specific period for the extension. The comment period for the RFI closed on August 9, 2022. After carefully considering this request, NETL, on behalf of DOE, has determined that a reopening of the comment period to allow additional time for interested parties to submit comments is appropriate. Therefore, NETL, on behalf of DOE, is reopening the comment period and will accept comments until September 8, 2022. Accordingly, NETL, on behalf of DOE, will consider any comments received by this date, to be timely submitted.

Signing Authority

This document of the Department of Energy was signed on August 5, 2022, by Brian J. Anderson, Ph.D., Executive Director, Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization and Director, National Energy Technology Laboratory (NETL), pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on August 5, 2022.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

[FR Doc. 2022–17212 Filed 8–10–22; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER22–1378–001.
Applicants: Golden Spread Electric Cooperative, Inc.
Description: Tariff Amendment: WPC Sched B Rider H Filing—OEMR response to be effective 9/1/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5064.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–1869–001.
Applicants: Bishop Hill Energy LLC.
Description: Tariff Amendment: Response to Deficiency Letter in Docket ER22–1869–000 to be effective 5/14/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5012.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2117–001.
Applicants: Midcontinent Independent System Operator, Inc.
Description: Tariff Amendment: 2022–08–05_SA 3454 Entergy Arkansas-Flat Fork Solar Sub 1st Rev GIA (J907 J1434) to be effective 6/2/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5027.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2604–000.
Applicants: Lucky Corridor, LLC.
Description: Baseline eTariff Filing: Filing of Lucky Corridor OATT to be effective 10/5/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5009.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2605–000.
Applicants: New York Independent System Operator, Inc.
Description: § 205(d) Rate Filing: Section 205 EPC Agreement among NYISO, KCE, Niagara, Erie, National Grid SA.2723 to be effective 7/22/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5011.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2606–000.
Applicants: Tri-State Generation and Transmission Association, Inc.
Description: § 205(d) Rate Filing: Amendment to Rate Schedule FERC No. 20 to be effective 10/4/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5015.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2607–000.
Applicants: Tri-State Generation and Transmission Association, Inc.
Description: § 205(d) Rate Filing: Amendment to Rate Schedule No. 2 to be effective 10/4/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5020.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2608–000.
Applicants: MATL LLP.
Description: Request for continued Negotiated Rate Authorization for MATL LLP.
Filed Date: 8/2/22.
Accession Number: 20220802–5179.
Comment Date: 5 p.m. ET 8/23/22.

Docket Numbers: ER22–2609–000.
Applicants: Midcontinent Independent System Operator, Inc.
Description: § 205(d) Rate Filing: 2022–08–05_SA 3413 Ameren IL-Cass County Solar Project 2nd Rev GIA (J859) to be effective 7/22/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5022.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2610–000.
Applicants: The Potomac Edison Company, PJM Interconnection, L.L.C.
Description: § 205(d) Rate Filing: The Potomac Edison Company submits tariff filing per 35.13(a)(2)(iii: Potomac Edison submits two ECSAs, SA Nos. 6349 and 6350 to be effective 10/5/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5033.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2611–000.
Applicants: Southwest Power Pool, Inc.
Description: § 205(d) Rate Filing: 3125R12 Basin Electric Power Cooperative NITSA and NOA to be effective 8/1/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5042.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2612–000.
Applicants: California Independent System Operator Corporation.
Description: § 205(d) Rate Filing: 2022–08–05 Transmission Control Agreement Removing Vernon as PTO to be effective 10/7/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5059.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2613–000.
Applicants: Arizona Public Service Company.
Description: § 205(d) Rate Filing: Service Agreement No. 362-City of Williams NITS, Amendment No. 2 to be effective 10/5/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5061.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2614–000.
Applicants: Southern California Edison Company.
Description: Tariff Amendment: Cancel LA, Desert Sunlight PV (SA282, TOT198–199) to be effective 10/5/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5070.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2615–000.
Applicants: Tri-State Generation and Transmission Association, Inc.
Description: § 205(d) Rate Filing: Initial Filing of Rate Schedule FERC No. 345 to be effective 7/13/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5073.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2616–000.
Applicants: Southern California Edison Company.
Description: § 205(d) Rate Filing: Second Amendment to LGIA, Desert Sunlight (TOT198–199, SA86) to be effective 10/5/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5088.
Comment Date: 5 p.m. ET 8/26/22.

Docket Numbers: ER22–2617–000.
Applicants: PJM Interconnection, L.L.C.
Description: § 205(d) Rate Filing: ISA, SA No. 6552; Queue Nos. AE2–318/AF1–045 to be effective 7/7/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5095.
Comment Date: 5 p.m. ET 8/26/22.

Take notice that the Commission received the following qualifying facility filings:

Docket Numbers: QF22–826–000.
Applicants: President and Fellows of Harvard College.
Description: Form 556 of President and Fellows of Harvard College [Harvard Allston District Energy Facility].
Filed Date: 8/5/22.
Accession Number: 20220805–5109.
Comment Date: 5 p.m. ET 8/26/22.

The filings are accessible in the Commission's eLibrary system (*https://elibrary.ferc.gov/idmws/search/fercgensearch.asp*) by 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: August 5, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–17260 Filed 8–10–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

Filings Instituting Proceedings

Docket Numbers: RP22–1108–000.
Applicants: Empire Pipeline, Inc.
Description: § 4(d) Rate Filing: Empire Housekeeping August 2022 to be effective 9/8/2022.
Filed Date: 8/4/22.
Accession Number: 20220804–5073.
Comment Date: 5 p.m. ET 8/16/22.

Docket Numbers: RP22–1109–000.
Applicants: National Fuel Gas Supply Corporation.
Description: § 4(d) Rate Filing: Housekeeping August 2022 to be effective 9/8/2022.
Filed Date: 8/4/22.
Accession Number: 20220804–5076.
Comment Date: 5 p.m. ET 8/16/22.

Docket Numbers: RP22–1110–000.
Applicants: Pine Prairie Energy Center, LLC.
Description: § 4(d) Rate Filing: PPEC Revisions to FERC Gas Tariff to be effective 9/7/2022.
Filed Date: 8/4/22.
Accession Number: 20220804–5099.
Comment Date: 5 p.m. ET 8/16/22.

Docket Numbers: RP22–1111–000.
Applicants: Adelphia Gateway, LLC.
Description: § 4(d) Rate Filing: Adelphia NRA filing August 2022 to be effective 8/5/2022.
Filed Date: 8/5/22.
Accession Number: 20220805–5026.
Comment Date: 5 p.m. ET 8/17/22.

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.

The filings are accessible in the Commission's eLibrary system (*https://elibrary.ferc.gov/idmws/search/fercgensearch.asp*) by querying the docket number.

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: August 5, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–17259 Filed 8–10–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 15281–000]

Solia 1 Hydroelectric, LLC; Notice of Preliminary Permit Application Accepted for Filing and Soliciting Comments, Motions To Intervene, and Competing Applications

On June 22, 2022, Solia 1 Hydroelectric, LLC, filed an application for a preliminary permit, pursuant to section 4(f) of the Federal Power Act (FPA), proposing to study the feasibility of the St. Lawrence County Pumped Storage Project to be located about 1 mile southwest of the City of Pyrites in St. Lawrence County, New York. The sole purpose of a preliminary permit, if issued, is to grant the permit holder priority to file a license application during the permit term. A preliminary permit does not authorize the permit holder to perform any land-disturbing activities or otherwise enter upon lands or waters owned by others without the owners' express permission.

The proposed project would consist of the following: (1) a new upper reservoir with a surface area of 120 acres and a storage capacity of 4,500 acre-feet at a maximum pool elevation of 605 feet mean sea level created through construction of a new rock-fill dam; (2) a new lower reservoir consisting of eight concentric circular tunnels with a storage capacity of 4,500 acre-feet at a depth of 2,500 feet below the ground surface; (3) a new 100-foot outside diameter, 18-foot inside diameter ''morning glory'' shaped vertical intake located in the upper reservoir; (4) a new 2,800-foot-long, 16-foot-diameter penstock connecting the upper reservoir and the underground powerhouse; (5) a new 200-foot-long, 70-foot-wide, 130-foot-high underground powerhouse containing two 333-megawatt (MW) reversible pump-turbines with a total installed capacity of 666 MW; (6) a new 200- to 500-foot-long, 230-kilovolt (kV) or 765-kV transmission line connecting the underground transformer gallery and the new substation to the existing grid; (7) a new 200-foot-long, 200-foot-wide substation; (8) a new pumping facility for providing initial filling water and makeup water obtained from the Grass River located within the eastern part of the project boundary; and (9) appurtenant facilities. The proposed project would have an annual generation of 1,450 gigawatt-hours.

Applicant Contact: Douglas Spaulding, Nelson Energy, 8441 Wayzata Blvd., Suite 101, Golden Valley, MN 55426; phone: (952) 544–8133.

FERC Contact: Woohee Choi; email: *woohee.choi@ferc.gov;* phone: (202) 502–6336.

Deadline for filing comments, motions to intervene, competing applications (without notices of intent), or notices of intent to file competing applications: 60 days from the issuance of this notice. Competing applications and notices of intent must meet the requirements of 18 CFR 4.36.

The Commission strongly encourages electronic filing. Please file comments, motions to intervene, notices of intent, and competing applications using the Commission's eFiling system at *https://ferconline.ferc.gov/eFiling.aspx.* Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at *https://ferconline.ferc.gov/QuickComment.aspx.* You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support. In lieu of electronic filing, you may submit a paper copy. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. The first page of any filing should include docket number P–15281–000.

More information about this project, including a copy of the application, can be viewed or printed on the ''eLibrary'' link of the Commission's website at *http://www.ferc.gov/docs-filing/elibrary.asp.* Enter the docket number (P–15281) in the docket number field to access the document. For assistance, contact FERC Online Support.

Dated: August 5, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–17255 Filed 8–10–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 3451–047]

Beaver Falls Municipal Authority; Notice of Application Tendered for Filing With the Commission and Soliciting Additional Study Requests and Establishing Procedural Schedule for Relicensing and a Deadline for Submission of Final Amendments

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection.

a. *Type of Application:* New Major License.

b. *Project No.:* 3451–047.

c. *Date filed:* August 1, 2022.

d. *Applicant:* Beaver Falls Municipal Authority (Beaver Falls).

e. *Name of Project:* Townsend Water Power Project.

f. *Location:* On the Beaver River, in the Borough of New Brighton in Beaver County, Pennsylvania. The project does not occupy any federal land.

g. *Filed Pursuant to:* Federal Power Act 16 U.S.C. 791(a)-825(r).

h. *Applicant Contact:* James Riggio, General Manager, Beaver Falls Municipal Authority, PO Box 400, Beaver Falls, PA 15010; (724) 846–2400.

i. *FERC Contact:* Emily Carter at (202) 502–6512, or *Emily.Carter@ferc.gov.*

j. *Cooperating agencies:* Federal, state, local, and Tribal agencies with jurisdiction and/or special expertise with respect to environmental issues that wish to cooperate in the preparation of the environmental document should follow the instructions for filing such requests described in item l below. Cooperating agencies should note the Commission's policy that agencies that cooperate in the preparation of the environmental document cannot also intervene. *See* 94 FERC ¶ 61,076 (2001).

k. Pursuant to section 4.32(b)(7) of 18 CFR of the Commission's regulations, if any resource agency, Indian Tribe, or person believes that an additional scientific study should be conducted in order to form an adequate factual basis for a complete analysis of the application on its merit, the resource agency, Indian Tribe, or person must file a request for a study with the Commission not later than 60 days from the date of filing of the application, and serve a copy of the request on the applicant.

l. Deadline for filing additional study requests and requests for cooperating agency status: September 30, 2022.

The Commission strongly encourages electronic filing. Please file additional study requests and requests for cooperating agency status using the Commission's eFiling system at *https://ferconline.ferc.gov/FERCOnline.aspx.* For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov,* (866) 208–3676 (toll free), or (202) 502–8659 (TTY). In lieu of electronic filing, you may submit a paper copy. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. All filings must clearly identify the project name and docket number on the first page: Townsend Water Power Project (P–3451–047).

m. The application is not ready for environmental analysis at this time.

n. The Townsend Water Power Project consists of the following existing facilities: (1) a 450-foot-long and 13-foot-high dam, constructed of rock-filled timber cribs encased in concrete, with a crest elevation 699.3 feet National Geodetic Vertical Datum of 1929 (NGVD29); (2) an approximately 25-acre reservoir with a gross storage capacity of 200 acre-feet at normal water surface elevation of 698.62 feet NGVD29; (3) a short entrance channel excavated in rock near the left dam abutment that directs water to an intake structure with trashracks and fish deflector; (4) a 52-foot-long by 46-foot-wide concrete powerhouse; (5) two double-regulated open-pit type turbine-generator units each rated at 2,500 kilowatts (kW) for a total installed capacity of 5,000 kW; (6) an approximately 230-foot-long tailrace, excavated in rock at a normal tailwater elevation of 681.17 feet NGVD29; (7) a 500-foot-long, 23-kilovolt (kV) transmission line owned by Duquesne Light Company; (8) 4.16-kV generator leads, a 60-foot-long section of 5-kV underground cable leading to a 4.16/23-kV transformer in an outdoor substation; and (9) appurtenant facilities. The average annual generation was 19,524 megawatt-hours for the period from 2015 to 2019.

The Townsend Water Power Project operates in a run-of-river mode with a continuous minimum flow of 304 cubic feet per second (cfs), or inflow, whichever is less. The flow for operating a single unit is 600 cfs and minimum river flow for the project operation is 904 cfs. There is minimal to no available usable storage behind the dam and if river flow is less than 904 cfs, all water is spilled over the dam. The project is typically operated automatically, but manual operation may occur during dynamic high-water events. The project is returned to automatic operation when flow decreases.

o. A copy of the application can be viewed on the Commission's website at *http://www.ferc.gov,* using the ''eLibrary'' link. Enter the docket number, excluding the last three digits in the docket number field, to access the document (P–3451). For assistance, contact FERC at *FERCOnlineSupport@ferc.gov,* or call toll-free, (866) 208–3676 or (202) 502–8659 (TTY).

You may also register online at *http://www.ferc.gov/docs-filing/esubscription.asp* to be notified via email of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

p. *Procedural schedule and final amendments:* The application will be processed according to the following preliminary schedule. Revisions to the schedule will be made as appropriate.

Milestone	Target date
Issue Deficiency Letter (if necessary).	September 2022.
Request Additional Information	September 2022.
Issue Acceptance Letter	December 2022.
Issue Scoping Document 1 for comments.	January 2023.
Request Additional Information (if necessary).	February 2023.
Issue Scoping Document 2 (if necessary).	March 2023.
Issue Notice of Ready for Environmental Analysis.	April 2023.

Final amendments to the application must be filed with the Commission no later than 30 days from the issuance date of the notice of ready for environmental analysis.

Dated: August 5, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–17256 Filed 8–10–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP22–25–000]

Notice of Availability of the Environmental Assessment for the Proposed Venture Global Calcasieu Pass, LLC Calcasieu Pass Uprate Amendment Project

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared an environmental assessment (EA) for the Calcasieu Pass Uprate Amendment Project, proposed by Venture Global Calcasieu Pass, LLC (Calcasieu Pass) in the above-referenced docket. Calcasieu Pass requests authorization to increase the authorized peak liquefaction capacity of the existing Calcasieu Pass Export Terminal in Cameron Parish, Louisiana.

The EA assesses the potential environmental effects of the Calcasieu Pass Uprate Amendment Project in accordance with the requirements of the National Environmental Policy Act (NEPA). The FERC staff concludes that approval of the proposed project, with appropriate mitigating measures, would not constitute a major federal action significantly affecting the quality of the human environment.

The U.S. Department of Energy, U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration, and U.S. Coast Guard participated as cooperating agencies in the preparation of the EA. Cooperating agencies have jurisdiction by law or special expertise with respect to resources potentially affected by the proposal and participate in the NEPA analysis.

Calcasieu Pass proposes to increase the Calcasieu Pass Export Terminal's authorized peak liquefaction capacity achievable under optimal conditions from 12.0 million metric tons per annum to 12.4 million metric tons per annum of liquefied natural gas (LNG)—or from approximately 620 billion cubic feet to approximately 640.7 billion cubic feet per year (gas equivalence). According to Calcasieu Pass, this proposed increase in the peak liquefaction capacity is based on updated engineering and vendor data, reflecting actual equipment performance. The requested increase does not involve the construction of any new facilities nor any modification of the previously authorized facilities. There would be no land disturbance required for this Project.

The Commission mailed a copy of the *Notice of Availability* of the EA to federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected landowners and other interested individuals and groups; and newspapers and libraries in the project area. The EA is only available in electronic format. It may be viewed and downloaded from the FERC's website (*www.ferc.gov*), on the natural gas environmental documents page (*https://www.ferc.gov/industries-data/natural-gas/environment/environmental-documents*). In addition, the EA may be accessed by using the eLibrary link on the FERC's website. Click on the eLibrary link (*https://elibrary.ferc.gov/eLibrary/search*), select ''General Search'' and enter the docket number in the ''Docket Number'' field (*i.e.,* CP22–25–000). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at *FercOnlineSupport@ferc.gov* or toll free at (866) 208–3676, or for TTY, contact (202) 502–8659.

The EA is not a decision document. It presents Commission staff's independent analysis of the environmental issues for the Commission to consider when addressing the merits of all issues in this proceeding. Any person wishing to comment on the EA may do so. Your comments should focus on the EA's disclosure and discussion of potential environmental effects, reasonable alternatives, and measures to avoid or lessen environmental impacts. The more specific your comments, the more useful they will be. To ensure that the Commission has the opportunity to consider your comments prior to making its decision on this project, it is important that we receive your comments in Washington, DC on or before 5 p.m. Eastern Time on September 4, 2022.

For your convenience, there are three methods you can use to file your comments to the Commission. The Commission encourages electronic filing of comments and has staff available to assist you at (866) 208–3676 or *FercOnlineSupport@ferc.gov*. Please carefully follow these instructions so that your comments are properly recorded.

(1) You can file your comments electronically using the eComment feature on the Commission's website (*www.ferc.gov*) under the link to FERC Online. This is an easy method for submitting brief, text-only comments on a project;

(2) You can also file your comments electronically using the eFiling feature on the Commission's website (*www.ferc.gov*) under the link to FERC Online. With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an account by clicking on ''eRegister.'' You must select the type of filing you are making. If you are filing a comment on a particular project, please select ''Comment on a Filing''; or

(3) You can file a paper copy of your comments by mailing them to the Commission. Be sure to reference the project docket number (CP22–25–000) on your letter. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Filing environmental comments will not give you intervenor status, but you do not need intervenor status to have your comments considered. Only intervenors have the right to seek rehearing or judicial review of the Commission's decision. At this point in this proceeding, the timeframe for filing timely intervention requests has expired. Any person seeking to become a party to the proceeding must file a motion to intervene out-of-time pursuant to Rule 214(b)(3) and (d) of the Commission's Rules of Practice and Procedures (18 CFR 385.214(b)(3) and (d)) and show good cause why the time limitation should be waived. Motions to intervene are more fully described at *https://www.ferc.gov/ferc-online/ferc-online/how-guides.*

Additional information about the project is available from the Commission's Office of External Affairs, at (866) 208–FERC, or on the FERC website (*www.ferc.gov*) using the eLibrary link. The eLibrary link also provides access to the texts of all formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries, and direct links to the documents. Go to *https://www.ferc.gov/*

ferc-online/overview to register for eSubscription.

Dated: August 5, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–17258 Filed 8–10–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EL22–77–000]

KMC Thermo, LLC; Notice of Institution of Section 206 Proceeding and Refund Effective Date

On August 5, 2022, the Commission issued an order in Docket No. EL22–77–000, pursuant to section 206 of the Federal Power Act (FPA), 16 U.S.C. 824e, instituting an investigation into whether KMC Thermo, LLC's Rate Schedule for Reactive Supply and Voltage Control from Generation Sources Service is unjust, unreasonable, unduly discriminatory or preferential, or otherwise unlawful. *KMC Thermo, LLC,* 179 FERC ¶ 61, 078 (2022).

The refund effective date in Docket No. EL22–77–000, established pursuant to section 206(b) of the FPA, will be the date of publication of this notice in the **Federal Register**.

Any interested person desiring to be heard in Docket No. EL22–77–000 must file a notice of intervention or motion to intervene, as appropriate, with the Federal Energy Regulatory Commission, in accordance with Rule 214 of the Commission's Rules of Practice and Procedure, 18 CFR 385.214 (2021), within 21 days of the date of issuance of the order.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (*http://www.ferc.gov*) using the ''eLibrary'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact FERC at *FERCOnlineSupport@ferc.gov* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

The Commission strongly encourages electronic filings of comments, protests and interventions in lieu of paper using the ''eFile'' link at *http://www.ferc.gov.* In lieu of electronic filing, you may submit a paper copy. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Dated: August 5, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–17257 Filed 8–10–22; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OAR–2013–0711; FRL–10102–01–OAR]

Proposed Information Collection Request; Comment Request; Data Requirements Rule for the 1-Hour Sulfur Dioxide Primary National Ambient Air Quality Standard (NAAQS) Information Request (Renewal)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) is planning to submit a renewal of an information collection request (ICR), ''Data Requirements Rule for the 1-Hour Sulfur Dioxide Primary National Ambient Air Quality Standard (NAAQS) Information Request (Renewal)'' (EPA ICR No. 2495.05), Office of Management and Budget (OMB) Control No. 2060–0696) to the OMB for review and approval in accordance with the Paperwork Reduction Act (PRA). Before doing so, the EPA is soliciting public comments on specific aspects of the proposed information collection as described below. This is a proposed renewal of the existing ICR for the Data Requirements Rule for the 1-Hour Sulfur Dioxide Primary NAAQS (SO_2 Data Requirements Rule), which is currently approved through December 31, 2022. 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.

DATES: Comments must be submitted on or before October 11, 2022.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2013–0711, at *http://www.regulations.gov.* Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov.* The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information the disclosure of which is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered to be the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Sydney Lawrence, Office of Air Quality Planning and Standards, Air Quality Policy Division, C504–05, U.S. Environmental Protection Agency, Research Triangle Park, NC; telephone number: (919) 541–4768; email address: *lawrence.sydney@epa.gov.*

SUPPLEMENTARY INFORMATION: Supporting documents which explain in detail the information that the EPA will be collecting are available in the public docket for this ICR. The docket can be viewed online at *www.regulations.gov.* Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. Hand deliveries and couriers may be received by scheduled appointment only. For further information on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

Pursuant to section 3506(c)(2)(A) of the PRA, EPA is soliciting comments and information to enable it to: (i) evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (ii) evaluate the

accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (iii) enhance the quality, utility, and clarity of the information to be collected; and (iv) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* electronic submission of responses. EPA will consider the comments received and amend the proposed ICR renewal as appropriate. The final ICR package will then be submitted to OMB for review and approval. At that time, the EPA will issue another **Federal Register** notice to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB.

Background

The SO_2 Data Requirements Rule (''DRR'' or ''Rule'') directed state, local, and tribal air quality management agencies to provide data to initially characterize current air quality in areas that contain large sources of SO_2 emissions, information that was used in the NAAQS designations and other processes.[1] The rule also requires states to continue to provide monitoring, modeling, and emissions data for a subset of sources that meet certain requirements under the rule, which may serve to verify whether these areas continue to meet the 2010 SO_2 NAAQS.

Through the SO_2 Data Requirements Rule and the initial ICR, the EPA required that states characterize ambient air quality around sources with emissions that are greater than 2,000 tons per year (tpy) or that were otherwise included as a listed source in accordance with the Rule.[2] Based upon 2011 emissions data, the ICR initially identified approximately 412 sources of SO_2 in 43 states that may potentially be listed under the DRR. Currently, there are 137 sources in 36 states that are still subject to ongoing reporting requirements under the SO_2 Data Requirements Rule.

The DRR described the criteria for identifying the source areas where air agencies needed to characterize SO_2 air quality. It also described the process and timetables by which air quality management agencies were required to characterize air quality in areas around sources through ambient monitoring and/or air quality modeling techniques and submit this data to EPA. The air quality data developed by the states in accordance with the Rule were used by EPA to assist in the remaining rounds of area designations for the 2010 SO_2 NAAQS, as well as in other areas, and is intended to provide information to verify whether areas are meeting the standard.

For those air quality management agencies that elected to conduct ambient air monitoring for areas with listed DRR sources to provide the necessary air quality data to EPA, the state and local air quality management agencies are responsible for reporting ambient air quality data and will continue to submit these data electronically to EPA's Air Quality System (AQS) and voluntary databases. Quality assurance/quality control records and monitoring network documentation are also maintained by each state and local agency, in AQS electronic format where possible. Although the state and local air quality management agencies are responsible for the operation of this air monitoring network, they may have opportunities to work with industry to help support modeling exercises and/or monitoring network installation, operations, and maintenance. As explained above, while information collections associated with initial ambient air quality monitoring required under the DRR (40 CFR part 51) were included in the prior version of the DRR ICR, any collections associated with ongoing monitoring are now covered by the part 58 ICR. Ongoing collections have been removed from the DRR ICR to avoid duplicative burden calculations. Future renewals of the Part 58 ICR will continue to cover any collections of ongoing ambient air monitoring data that were initiated under subpart BB of part 51, as long as any of those monitors continues to operate.

For those air quality management agencies that elected to conduct air quality modeling of the areas containing listed DRR sources to provide the necessary air quality data to EPA and which were designated either unclassifiable/attainment or attainment/unclassifiable based on modeling of actual emissions of the area, state and local air quality management agencies are responsible for submitting on-going data reports. In accordance with the SO_2 Data Requirements Rule, these reports must be submitted annually as either a stand-alone document made available for public inspection or as an appendix to the air agency's Annual Monitoring Network Plan, and are required to include the annual SO_2 emissions of each applicable source in each such area, provide an assessment of the cause of any emissions increase from the previous year, and include a recommendation from the air agency regarding whether additional modeling is needed to characterize air quality in any area to determine whether the area meets or does not meet the 2010 SO_2 NAAQS. If the EPA requires that the air agency conduct updated air quality modeling for the area, the air agency has 12 months to submit it to the EPA.

Abstract

This ICR includes estimates for the submission and processing of emissions and emissions-related information and ambient air dispersion modeling reporting and activities, associated with the 40 CFR part 51 Requirements for Preparation, Adoption and Submittal of Implementation Plans, as they apply to the 2010 1-Hour SO_2 Primary NAAQS. These data and information are collected by various state and local air quality management agencies and reported to the EPA. State and local air management agencies chose to submit either monitoring or modeling information in order to meet the initial and on-going requirements, as applicable, to characterize air quality concentrations in areas with specific emissions sources identified under the final SO_2 DRR. This proposed ICR Renewal adopts (with some revisions) the estimates contained in the original ICR, and it includes burden estimates for the development, submittal, and processing of the information described above to meet ongoing requirements under the DRR during the period January 1, 2023–December 31, 2025. For those state and local air management agencies that chose ambient monitoring rather than modeling to characterize air quality around specific emissions sources during the initial phase of DRR implementation (2016), such monitoring is required by subpart BB of part 51, and information collections associated with initial ambient air quality monitoring required under Part 51 were initially included in the prior versions of the DRR ICR. Currently, the DRR requires that ongoing monitoring continue to meet the operational constraints and requirements in 40 CFR part 58, and any collections associated with ongoing monitoring under the DRR are now covered by the Part 58 ICR (EPA ICR No. 0940.29; OMB No. 2060–0084). Therefore, ongoing collections of ambient monitoring data have been removed from coverage by the DRR ICR to avoid duplicative burden

[1] *See* 80 FR 51052 (August 21, 2015).

[2] Pursuant to section 51.1203(a) of the SO_2 Data Requirements Rule, air management agencies were required to submit a list of applicable sources of SO_2 emissions in their jurisdiction with emissions of 2,000 tpy or greater by no later than January 15, 2016. *See* 80 FR 51087, August 21, 2015.

calculations. Future renewals of the part 58 ICR will continue to cover any collections of ongoing ambient air monitoring data that were initiated under Subpart BB of Part 51, so long as any of those monitors continues to operate.

In accordance with the requirements of the DRR, where an air agency finds in the annual emissions report for a source subject to the DRR that emissions have increased in an area, the state or the EPA may determine that the state must submit updated air quality modeling data for the area to determine whether or not the area is meeting the 2010 1-Hour SO_2 Primary NAAQS.

The information requirements included within this ICR are necessary to provide EPA with ambient air quality data, which includes emissions data and/or modeling data, to determine the air quality status of specific areas around the country, to make attainment decisions for those areas with respect to the NAAQS, to assist in developing necessary control strategies in order to ensure attainment of the NAAQS in those areas, to assess national trends in air pollution, to inform the public of air quality, and to determine the population's exposure to various ambient air pollutants. EPA's ability to achieve its goal of attaining the 2010 SO_2 1-hour NAAQS in all areas of the United States is directly dependent upon the availability of ambient air quality data (emissions and/or modeling data) requested in this information collection. Additionally, EPA, state and local air quality management agencies, environmental groups, industrial groups, and academic organizations use these data to study atmospheric chemistry, *e.g.,* the formation and fate of SO_2 to determine the most appropriate and effective control strategies necessary to reduce air pollution.

The principal legal authority for this information collection is the Clean Air Act (CAA), 42 U.S.C. 7403, 7410, 7414(a), and 7511a, from which the 40 CFR part 51 regulations were promulgated. Under section 7403(c), the Administrator is required to conduct a program of research, testing, and development of methods for sampling, measurement, monitoring, analysis, and modeling of air pollutants, specifically including a requirement to establish a national network to monitor, collect, and compile data with quantification of certainty in the status and trends of air emissions and air quality.

CAA sections 110(a) and (k) (42 U.S.C. 7410(a) and (k)) contain the state implementation plan (SIP) requirements, which include a requirement that each State submit a SIP that: (1) provides for the establishment and operation of appropriate devices, methods, systems, and procedures necessary to monitor, compile, analyze, and make available to the Administrator data on ambient air quality and (2) provides for the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a NAAQS, and the submission, upon request, of data related to such air quality modeling to the designee as stipulated in the rule.

Form Numbers: None.

Respondents/affected entities: State, local and tribal air pollution management control agencies.

Respondents' obligation to respond: mandatory (*see* CAA 42 U.S.C. 7403, 7410, and 7511a, from which the 40 CFR part 51 regulations were promulgated).

Estimated number of respondents: 36 states, providing emissions and in some cases air quality modeling for 137 sources.

Frequency of response: Annually for ongoing modeling annual report.

Total estimated burden: On the high end, the modeling burden per source is estimated to be $22,000 annually. On the low end, labor costs are estimated to be 5% of the overall turnkey estimate, or $1,100 per report annually. Burden is defined at 5 CFR 1320.03(b).

Total estimated cost: Range of $150,700 to $3,014,000 (per year).

Changes in Estimates: The prior renewal of this ICR estimated a maximum possible burden of $5,100,000 annually for modeling sources. This ICR renewal, estimating a range of $150,700 to $3,014,000 annually, reflects a decrease in the maximum possible burden of $2,086,000 annually for modeling sources. This decrease is due to the reduced number of listed sources for which states chose air quality modeling to meet their DRR requirements.

Scott Mathias,

Director, Air Quality Policy Division.

[FR Doc. 2022–17267 Filed 8–10–22; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL DEPOSIT INSURANCE CORPORATION

Notice to All Interested Parties of Intent To Terminate Receiverships

Notice is hereby given that the Federal Deposit Insurance Corporation (FDIC or Receiver), as Receiver for the institutions listed below, intends to terminate its receivership for said institutions.

NOTICE OF INTENT TO TERMINATE RECEIVERSHIPS

Fund	Receivership name	City	State	Date of appointment of receiver
10005	ANB Financial, NA	Bentonville	AR	05/09/2008
10012	Integrity Bank	Alpharetta	GA	08/29/2008
10018	Alpha Bank and Trust	Alpharetta	GA	10/24/2008
10020	Security Pacific Bank	Los Angeles	CA	11/07/2008
10022	The Community Bank	Loganville	GA	11/21/2008
10030	1st Centennial Bank	Redlands	CA	01/23/2009
10031	MagnetBank	Salt Lake City	UT	01/30/2009
10037	Corn Belt Bank and Trust Company	Pittsfield	IL	02/13/2009
10038	Riverside Bank of the Gulf Coast	Cape Coral	FL	02/13/2009
10121	Irwin Union, FSB	Louisville	KY	09/18/2009
10199	Appalachian Community Bank	Ellijay	GA	03/19/2010
10215	Lakeside Community Bank	Sterling Heights	MI	04/16/2010
10291	Maritime Savings Bank	West Allis	WI	09/17/2010

The liquidation of the assets for each receivership has been completed. To the extent permitted by available funds and in accordance with law, the Receiver will be making a final dividend payment to proven creditors.

Based upon the foregoing, the Receiver has determined that the continued existence of the receiverships will serve no useful purpose. Consequently, notice is given that the receiverships shall be terminated, to be effective no sooner than thirty days after the date of this notice. If any person wishes to comment concerning the termination of any of the receiverships, such comment must be made in writing, identify the receivership to which the comment pertains, and be sent within thirty days of the date of this notice to: Federal Deposit Insurance Corporation, Division of Resolutions and Receiverships, Attention: Receivership Oversight Section, 600 North Pearl, Suite 700, Dallas, TX 75201.

No comments concerning the termination of the above-mentioned receiverships will be considered which are not sent within this timeframe.

(Authority: 12 U.S.C. 1819)

Federal Deposit Insurance Corporation.

Dated at Washington, DC, on August 3, 2022.

James P. Sheesley,

Assistant Executive Secretary.

[FR Doc. 2022–17203 Filed 8–10–22; 8:45 am]

BILLING CODE 6714–01–P

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Acquisitions of Shares of a Bank or Bank Holding Company

The notificants listed below have applied under the Change in Bank Control Act (Act) (12 U.S.C. 1817(j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire shares of a bank or bank holding company. The factors that are considered in acting on the applications are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The public portions of the applications listed below, as well as other related filings required by the Board, if any, are available for immediate inspection at the Federal Reserve Bank(s) indicated below and at the offices of the Board of Governors. This information may also be obtained on an expedited basis, upon request, by contacting the appropriate Federal Reserve Bank and from the Board's Freedom of Information Office at *https://www.federalreserve.gov/foia/request.htm.* Interested persons may express their views in writing on the standards enumerated in paragraph 7 of the Act.

Comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors, Ann E. Misback, Secretary of the Board, 20th Street and Constitution Avenue NW, Washington, DC 20551–0001, not later than August 26, 2022.

A. Federal Reserve Bank of St. Louis (Holly A. Rieser, Senior Manager) P.O. Box 442, St. Louis, Missouri 63166–2034, or electronically to *Comments.applications@stls.frb.org:*

1. *The Kurt A. Schubert Heritage Trust dated February 7, 2022, and Kurt A. Schubert, as trustee, both of Jefferson City, Missouri;* to acquire voting shares of Mid-MO Bancshares, Inc., Auxvasse, Missouri, and thereby indirectly acquire voting shares of United Security Bank, Fulton, Missouri.

Board of Governors of the Federal Reserve System.

Ann E. Misback,

Secretary of the Board.

[FR Doc. 2022–17289 Filed 8–10–22; 8:45 am]

BILLING CODE P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2012–N–0386]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Registration and Product Listing for Owners and Operators of Domestic Tobacco Product Establishments and Listing of Ingredients in Tobacco Products

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 (PRA).

DATES: Submit written comments (including recommendations) on the collection of information by September 12, 2022.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be submitted to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function. The OMB control number for this information collection is 0910–0650. Also include the FDA docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Amber Sanford, Office of Operations, Food and Drug Administration, Three White Flint North, 10A–12M, 11601 Landsdown St., North Bethesda, MD 20852, 301–796–8867, *PRAStaff@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.

Registration and Product Listing for Owners and Operators of Domestic Tobacco Product Establishments and Listing of Ingredients in Tobacco Products

OMB Control Number 0910–0650—Extension

On June 22, 2009, the Family Smoking Prevention and Tobacco Control Act (Tobacco Control Act) (Pub. L. 111–31) was signed into law. The Tobacco Control Act amended the Federal Food, Drug, and Cosmetic Act (FD&C Act) by adding, among other things, a chapter granting FDA important authority to regulate the manufacture, marketing, and distribution of tobacco products to protect the public health generally and to reduce tobacco use by minors. The Tobacco Control Act created new requirements for the tobacco industry. Section 101 of the Tobacco Control Act amended the FD&C Act by adding, among others, sections 905 and 904 (21 U.S.C. 387e and 387d).

Section 905 of the FD&C Act requires the annual registration of any ''establishment in any State engaged in the manufacture, preparation, compounding, or processing of a tobacco product or tobacco products.'' Section 905 of the FD&C Act requires this registration be completed by December 31 of each year. The Secretary of Health and Human Services (Secretary) has delegated to the Commissioner of Food and Drugs the responsibility for administering the FD&C Act, including section 905. Section 905 of the FD&C Act requires owners or operators of each establishment to register: (1) their name; (2) places of business; (3) a list of all tobacco products which are

manufactured by that person; (4) a copy of all labeling and a reference to the authority for the marketing of any tobacco product subject to a tobacco product standard under section 907 of the FD&C Act (21 U.S.C. 387g) or to premarket review under section 910 of the FD&C Act (21 U.S.C. 387j); (5) a copy of all consumer information and other labeling; (6) a representative sampling of advertisements; (7) upon request made by the Secretary for good cause, a copy of all advertisements for a particular tobacco product; and (8) upon request made by the Secretary, if the registrant has determined that a tobacco product contained in the product list is not subject to a tobacco product standard established under section 907 of the FD&C Act, a brief statement of the basis upon which the registrant made such determination.

FDA collects the information submitted pursuant to section 905 of the FD&C Act through an electronic portal, and through paper forms (Forms FDA 3741 *https://www.fda.gov/media/77915/download* and 3741a *https://www.fda.gov/media/99863/download*) for those individuals who choose not to use the electronic portal.

FDA has also published a guidance for industry entitled ''Registration and Product Listing for Owners and Operators of Domestic Tobacco Product Establishments'' (*https://www.fda.gov/downloads/TobaccoProducts/Labeling/RulesRegulationsGuidance/UCM191940.pdf*). This guidance is intended to assist persons making tobacco product establishment registration and product listing submissions to FDA.

Section 904(a)(1) of the FD&C Act requires that each tobacco product manufacturer or importer submit ''a listing of all ingredients, including tobacco, substances, compounds, and additives that are, as of such date, added by the manufacturer to the tobacco, paper, filter, or other part of each tobacco product by brand and by quantity in each brand and subbrand'' by December 22, 2009. This section applies only to those tobacco products manufactured and distributed before June 22, 2009, and which are still manufactured as of the date of the ingredient listing submission.

Section 904(c) of the FD&C Act requires that a tobacco product manufacturer: (1) provide all information required under section 904(a) of the FD&C Act to FDA ''at least 90 days prior to the delivery for introduction into interstate commerce of a tobacco product not on the market on the date of enactment'' of the Tobacco Control Act; (2) advise FDA in writing at least 90 days prior to adding any new tobacco additive or increasing in quantity an existing tobacco additive, except for those additives that have been designated by FDA through regulation as not a human or animal carcinogen, or otherwise harmful to health under intended conditions of use; and (3) advise FDA in writing at least 60 days of such action of eliminating or decreasing an existing additive, or adding or increasing an additive that has been designated by FDA through regulation as not a human or animal carcinogen, or otherwise harmful to health under intended conditions of use.

FDA collects the information submitted pursuant to section 904(a)(1) and 904(c) of the FD&C Act through an electronic portal, and through a paper form (Form FDA 3742 *https://www.fda.gov/media/77661/download*) for those individuals who choose not to use the electronic portal.

In addition to the development of the electronic portal and paper form, FDA published a guidance entitled ''Listing of Ingredients in Tobacco Products'' (*https://www.fda.gov/media/101162/download*). This guidance is intended to assist persons making tobacco product ingredient listing submissions. FDA also provides a technical guide, embedded hints, and a web tutorial to the electronic portal.

The Tobacco Control Act also gave FDA the authority to issue a regulation deeming all other products that meet the statutory definition of a tobacco product to be subject to Chapter 9 of the FD&C Act (section 901(b) of the FD&C Act (21 U.S.C. 387a(b))). On May 10, 2016, FDA issued that rule, extending FDA's tobacco product authority to all products that meet the definition of tobacco product in the law (except for accessories of newly regulated tobacco products), including electronic nicotine delivery systems, cigars, hookah tobacco, pipe tobacco, nicotine gels, and dissolvables that were not already subject to the FD&C Act, and other tobacco products that may be developed in the future (81 FR 28974 at 28976) (''the final deeming rule'').

In the **Federal Register** of January 28, 2022 (87 FR 4622), FDA published a 60-day notice requesting public comment on the proposed collection of information. One comment was received that was not PRA related.

FDA estimates the burden of this collection of information as follows:

TABLE 1—ESTIMATED ANNUAL REPORTING BURDEN [1]

FDA form; activity; Tobacco Control Act section	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per recordkeeping	Total hours
Tobacco Product Establishment Initial Registration and Listing; Form FDA 3741 Registration and Product Listing for Owners and Operators of Domestic Establishments (Electronic and Paper submissions); sections 905(b)–(d), 905(h), or 905(i).	200	1	200	1.6	320
Tobacco Product Establishment Renewal Registration and Listing; Form FDA 3741 Registration and Product Listing for Owners and Operators of Domestic Establishments (Electronic and Paper submissions); sections 905(b)–(d), 905(h), or 905(i).	2,572	1	2,572	0.16 (10 minutes)	412
Tobacco Product Listing; Form FDA 3742 Listing of Ingredients (Electronic and Paper submissions); section 904(a)(1).	16	1	16	2	32
Tobacco Product Listing; Form FDA 3742 Listing of Ingredients (Electronic and Paper submissions); section 904(c).	37	10	370	0.40 (24 minutes)	148
Obtaining a Dun and Bradstreet (D–U–N–S) Number	100	1	100	0.5 (30 minutes)	50
Total					962

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Since the publishing of the 60-day notice, the Consolidated Appropriations Act of 2022 (the Appropriations Act, Pub. L. 117–103), enacted on March 15, 2022, amended the definition of the term ''tobacco product'' in section 201(rr) of the FD&C Act (21 U.S.C. 321(rr)) to include products that contain nicotine from any source. As a result,

non-tobacco nicotine (NTN) products that were not previously subject to the FD&C Act (*e.g.,* products containing synthetic nicotine) are now subject to all of the tobacco product provisions in the FD&C Act beginning on April 14, 2022. Based on this new authority the owners and operators of establishments engaged in the manufacture, preparation, compounding, or processing of tobacco products containing NTN must register with the FDA and list all these tobacco products that they manufacture, prepare, compound, or process for commercial distribution. As such we have revised the estimates in the burden chart to account for products containing NTN.

The PRA burden estimates have been updated to fully incorporate the use of an electronic system known as Tobacco Registration and Product Listing Module Next Generation (TRLM NG) for submitting registration and product listing information to FDA. With the TRLM NG, manufacturers can enter information quickly and easily. For example, product label pictures can be uploaded directly. We anticipate that most, if not all companies, already have electronic versions of their labels for printing, sales, or marketing purposes.

Product listing information is provided at the time of registration. Currently, registration and listing requirements only apply to domestic establishments engaged in the manufacture, preparation, compounding, or processing of a tobacco product. This includes importers to the extent that they engage in the manufacture, preparation, compounding, or processing of a tobacco product, including repackaging or otherwise changing the container, wrapper, or labeling of any tobacco product package. Foreign establishments are not required to register and list until FDA issues regulations establishing such requirements in accordance with section 905(h) of the FD&C Act. To account for the foregoing, we include both domestic manufacturing establishments and importers in our estimates.

The deadline for initial establishment registration and product listing for both statutorily regulated and deemed products has passed. However, pursuant to the new authority provided by the Appropriations Act, the FD&C Act now includes specific language that makes clear FDA has the authority the owners and operators of establishments engaged in the manufacture, preparation, compounding, or processing of tobacco products containing NTN must register with the FDA and list all these tobacco products that they manufacture, prepare, compound, or process for commercial distribution.

FDA estimates up to 200 new establishments will submit one initial establishment registration and product listing report each year. Such new establishments potentially include manufacturers of NTN products, new vape shop locations that mix or assemble tobacco products on the market as of the final deeming rule effective date. The Agency estimates that up to 200 tobacco establishments will each submit 1 initial establishment registration and product listing report each year, which is expected to take 1.6 hours, for a total 320 burden hours.

FDA estimates that the confirmation or updating of establishment registration and product listing information as required by section 905 of the FD&C Act will take 10 minutes annually per confirmation or update per establishment. Based on FDA's experience with current establishment registration and product listings submitted to the Agency, the Agency estimates that on average 2,572 establishments will each submit one confirmation or updated report each year, which is expected to take 0.16 hour (10 minutes) for a total 412 burden hours.

FDA estimates that the submission of ingredient listings required by section 904(a)(1) of the FD&C Act for each establishment will take 2 hours initially. Ingredients may be submitted electronically through the Center for Tobacco Products portal or if unable to submit ingredients electronically then by mail using Form FDA 3742. We expect all 904(a)(1) tobacco ingredient submissions to have been received prior to November 8, 2018, for small manufacturers and large manufacturers, May 8, 2018, for cigarettes, cigarette tobacco, roll-your-own, smokeless tobacco, and deemed tobacco products. While all manufacturers have been expected to submit 904(a)(1) tobacco ingredient submissions, there may be a small number of firms that have missed this deadline. We are estimating approximately three manufacturers may have missed their deadline. This is based on estimates of how many late submissions FDA has received after the deadline. Because this burden estimate covers 3 years, we are dividing by 3, to yield 1 respondent as a yearly average for this estimate. Additionally, manufacturers for tobacco products containing nicotine that is not made or derived from tobacco must complete initial tobacco ingredient submissions for such products per section 904(a)(1) of the FD&C Act. Therefore, FDA estimates that 16 establishments will initially submit one report annually at 2 hours per report, for a total of 32 hours.

Submissions under section 904(c) of the FD&C Act are for any new product that is not yet on the market (*e.g.,* if on the market due to deeming compliance period, deemed product manufacturers should have submitted under section 904(a)(1) of the FD&C Act). This includes any statutorily regulated product that would receive a marketing authorization, any new deemed product not subject to the deeming compliance period, and any new NTN products not on the market as of April 14, 2022. For deemed product categories and NTN products, there is a portion of these applicants who will have reported their ingredients under section 904(a)(1) of the FD&C Act as most of these submissions are expected to be for products subject to section 904(a)(1) requirements.

Based on FDA's experience and the number of new products authorized to be introduced or delivered for introduction into interstate commerce submitted over the past 3 years, FDA estimates that 37 establishments will each submit 10 reports (1 every 6 months). FDA also estimates that the confirmation or updating of product (ingredient) listing information required by section 904(c) of the FD&C Act is expected to take 0.40 hour (24 minutes) for a total 148 burden hours. FDA estimates that obtaining a DUNS (data universal numbering system) number will take 30 minutes. FDA assumes that all new establishment facilities that will be required to initially register under section 905 of the FD&C Act would obtain a DUNS number. FDA estimates that up to 100 establishments that would need to obtain this number each year. The total industry burden to obtain a DUNS number is 50 hours.

FDA estimates the total burden for this collection to be 962 hours. We have adjusted our burden estimate, which has resulted in an increase of 132 hours to the currently approved burden. As a result, NTN products that were not previously subject to the FD&C Act (*e.g.,* products containing synthetic nicotine) are now subject to all of the tobacco product provisions in the FD&C Act beginning on April 14, 2022. Based on this new authority the owners and operators of establishments engaged in the manufacture, preparation, compounding, or processing of tobacco products containing NTN must register with the FDA and list all these tobacco products that they manufacture, prepare, compound, or process for commercial distribution. As such we have revised the estimates in the burden

chart to account for products containing NTN.

Dated: August 5, 2022.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2022–17248 Filed 8–10–22; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013–N–0520]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Substances Prohibited From Use in Animal Food or Feed; Animal Proteins Prohibited in Ruminant Feed

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: Submit written comments (including recommendations) on the collection of information by September 12, 2022.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be submitted to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function. The OMB control number for this information collection is 0910–0339. Also include the FDA docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Amber Sanford, Office of Operations, Food and Drug Administration, Three White Flint North, 10A–12M, 11601 Landsdown St., North Bethesda, MD 20852, 301–796–8867, *PRAStaff@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.

Substances Prohibited From Use in Animal Food or Feed; Animal Proteins Prohibited in Ruminant Feed—21 CFR 589.2000(e)(1)(iv)

OMB Control Number 0910–0339—Extension

Section 701(a) (21 U.S.C. 371(a)) of the Federal Food, Drug, and Cosmetic Act (FD&C Act) gives us the authority to issue regulations for the efficient enforcement of the FD&C Act. Our regulation at 21 CFR 589.2000 provides that animal protein derived from mammalian tissue (with some exclusions) is not generally recognized as safe (GRAS) for use in ruminant feed and is a food additive subject to certain provisions of the FD&C Act (62 FR 30936, June 5, 1997).

This information collection was established because epidemiological evidence gathered in the United Kingdom suggested that bovine spongiform encephalopathy (BSE), a progressively degenerative central nervous system disease, is spread to ruminant animals by feeding protein derived from ruminants infected with BSE. This regulation places general requirements on persons that manufacture, blend, process, and distribute products that contain, or may contain, protein derived from mammalian tissue, and feeds made from such products.

Specifically, this regulation requires renderers, feed manufacturers, and others involved in feed and feed ingredient manufacturing and distribution to maintain written procedures specifying the cleanout procedures or other means and specifying the procedures for separating products that contain or may contain protein derived from mammalian tissue from all other protein products from the time of receipt until the time of shipment. These written procedures are intended to help the firm formalize consistent processes, and then to help inspection personnel confirm that the firm is conducting these processes in compliance with the regulation. Inspection personnel will evaluate the written procedure and confirm it is being followed when they are conducting an inspection.

These written procedures must be maintained if the facility is operating in a manner that necessitates the record, and if the facility makes changes to an applicable procedure or process the record must be updated. Written procedures required by this section shall be made available for inspection and copying by FDA.

Description of Respondents: Respondents include renderers, feed manufacturers, and others involved in feed and feed ingredient manufacturing and distribution.

In the **Federal Register** of January 28, 2022 (87 FR 4626), FDA published a 60-day notice requesting public comment on the proposed collection of information. Although one comment was received it was not responsive to the four collection of information topics solicited.

FDA estimates the burden of this collection of information as follows:

TABLE 1—ESTIMATED ANNUAL RECORDKEEPING BURDEN [1]

21 CFR part	Number of recordkeepers	Number of records per recordkeeper	Total annual records	Average burden per recordkeeping	Total hours
Written procedures; 589.2000(e)(1)(iv) ..	225	1	225	14	3,150

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

We base our estimate of the number of recordkeepers on inspectional data. Based on a review of the information collection since our last request for OMB approval we have adjusted our burden estimate, which has resulted in a decrease of 1,330 hours. Review of our inspection data suggests that the number of facilities that need to conduct these separation practices is gradually decreasing, therefore we have decreased the number of facilities who must comply, as well as the total number of hours needed to comply with this burden.

Dated: August 5, 2022.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2022–17274 Filed 8–10–22; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, HHS.

ACTION: Notice.

SUMMARY: Findings of research misconduct have been made against Stuart G. Jarrett, Ph.D. (Respondent), former research-track assistant professor, Department of Toxicology and Cancer Biology and Markey Cancer Center, University of Kentucky (UK) College of Medicine. Respondent engaged in research misconduct under 42 CFR part 93 in research supported by U.S. Public Health Service (PHS) funds, specifically National Cancer Institute (NCI), National Institutes of Health (NIH), grants R01 CA131075 and T32 CA165990, National Center for Advancing Translational Sciences (NCATS), NIH, grant UL1 TR000117, and National Institute of Environmental Health Sciences (NIEHS), NIH, grant T32 ES007266. The administrative actions, including debarment for a period of four (4) years, were implemented beginning on July 18, 2022, and are detailed below.

FOR FURTHER INFORMATION CONTACT: Wanda K. Jones, Dr.P.H., Acting Director, Office of Research Integrity, 1101 Wootton Parkway, Suite 240, Rockville, MD 20852, (240) 453–8200.

SUPPLEMENTARY INFORMATION: Notice is hereby given that the Office of Research Integrity (ORI) has taken final action in the following case:

Stuart G. Jarrett, Ph.D., University of Kentucky: Based on the evidence and findings of an investigation conducted by UK, ORI's oversight review of UK's investigation, and additional evidence obtained and analysis conducted by ORI during its oversight review, ORI found that Dr. Stuart G. Jarrett, former research-track assistant professor, Department of Toxicology and Cancer Biology and Markey Cancer Center, UK College of Medicine, engaged in research misconduct under 42 CFR part 93 in research supported by PHS funds, specifically NCI, NIH, grants R01 CA131075 and T32 CA165990, NCATS, NIH, grant UL1 TR000117, and NIEHS, NIH, grant T32 ES007266.

ORI found by a preponderance of the evidence that Respondent intentionally, knowingly, or recklessly falsified and/or fabricated Western blot and histological image data related to mechanisms of melanoma protection by reusing, relabeling, and manipulating images or using blank panels to falsely report data in twenty-eight (28) figures included in four (4) PHS-supported published papers, one (1) funded PHS grant application, and two (2) unfunded PHS grant applications. ORI found that these acts constitute a significant departure from accepted practices of the relevant research community. The affected papers and grant applications are:

- PKA-mediated phosphorylation of ATR promotes recruitment of XPA to UV-induced DNA damage. *Mol. Cell* 2014 Jun 19;54(6):999–1011; doi: 10.1016/j.molcel.2014.05.030 (hereafter referred to as ''*Mol. Cell* 2014'').
- AKAP12 mediates PKA-induced phosphorylation of ATR to enhance nucleotide excision repair. *Nucleic Acids Res.* 2016 Dec 15;44(22):10711–26; doi: 10.1093/nar/gkw871 (hereafter referred to as ''*Nucleic Acids Res.* 2016''). Retraction in: *Nucleic Acids Res.* 2020 Nov 18; 48(20):11814; doi: 10.1093/nar/gkaa984.
- Sirtuin 1-mediated deacetylation of XPA DNA repair protein enhances its interaction with ATR protein and promotes cAMP-induced DNA repair of UV damage. *J. Biol. Chem.* 2018 Dec 7; 293(49): 19025–37; doi: 10.1074/jbc.RA118.003940 (hereafter referred to as ''*JBC* 2018''). Retraction in: *J. Biol. Chem.* 2021 Jan–Jun;296:100185; doi: 10.1016/j.jbc.2020.100185.
- The melanocortin signaling cAMP axis accelerates repair and reduces mutagenesis of platinum-induced DNA damage. *Sci. Rep.* 2017 Sep 15;7(1):11708; doi: 10.1038/s41598–017–12056–5 (hereafter referred to as ''*Sci. Rep.* 2017''). Retraction in: *Sci. Rep.* 2021 Jan 7;11(1):847; doi: 10.1038/s41598–020–80467–y.
- R01 CA131075–06, ''Defining the contribution of ATR to MC1R-enhanced DNA repair in melanocytes,'' submitted to NCI, NIH, on July 1, 2014 (not funded).
- R01 CA131075–06A1, ''Defining the contribution of ATR to MC1R-enhanced DNA repair in melanocytes,'' submitted to NCI, NIH, on March 2, 2015, Funded Project Dates: July 1, 2010–March 31, 2022.
- R01 CA207312–01, ''Defining mechanisms of MC1R-enhanced nucleotide excision repair in melanocytes,'' submitted to NCI, NIH, on October 1, 2015 (not funded).

Specifically, ORI found by a preponderance of the evidence that Respondent engaged in research misconduct by intentionally, knowingly, or recklessly falsifying and/or fabricating:

- Western blot images in Figures 7D and 7E of *Mol. Cell* 2014 by reusing, manipulating, and relabeling an image to falsely represent different experiments in UV-untreated cells in Figure 7D and in UV-treated cells in Figure 7E
- Western blot images in Supplemental Figure 3C of *Mol. Cell.* 2014 by reusing, manipulating, and relabeling a blot panel image to falsely represent different experiments involving [6–4]-photoproducts and XPA
- confocal microscopic images of melanocytes in Figure 1C of *Nucleic Acids Res.* 2016 by inserting a blank image panel to falsely represent the absence of proximity ligation assay (PLA) signal in a negative control experiment when the original image showed PLA signal
- confocal microscopic images of melanocytes in Figure 5B of *Nucleic Acids Res.* 2016, by inserting blank image panels to falsely represent UV-untreated control experiments, and the quantification reported in Figure 5C that was derived from falsified and/or fabricated images in Figure 5B
- confocal microscopic images of melanocytes in Figure 6A of *Nucleic Acids Res.* 2016, by inserting blank image panels to falsely represent the absence of PLA signal in negative control experiments when the original images showed PLA signal, and the quantification reported in Figure 6C that was derived from falsified and/or fabricated images in Figure 6A
- confocal microscopic images of melanocytes in Figure 6B of *Nucleic Acids Res.* 2016, by inserting blank image panels to falsely represent UV-untreated control experiments, and the quantification reported in Figure 6C that was derived from falsified and/or fabricated images in Figure 6B
- confocal microscopic images of melanocytes in Figure 6D of *Nucleic Acids Res.* 2016, by inserting blank image panels to falsely represent no PLA signal in control experiments when the original images showed PLA signal, and the quantification reported in Figure 6F that was derived from falsified and/or fabricated images in Figure 6D
- confocal microscopic images of melanocytes in Figure 6E of *Nucleic Acids Res.* 2016, by inserting blank image panels to falsely represent UV-untreated control experiments, and the quantification reported in Figure 6F that was derived from falsified and/or fabricated images in Figure 6E
- confocal microscopic images of melanocytes in Figure 6G of *Nucleic Acids Res.* 2016 by inserting blank image panels to falsely represent the

absence of nuclear localization of XPA, AKAP12, and ATR–pS435 in unirradiated cells transfected with wild-type AKAP12 when the original images showed positive signal

- confocal microscopic images of melanocytes in Figure 6H of *Nucleic Acids Res.* 2016 by inserting blank image panels to falsely represent the absence of nuclear localization of XPA, AKAP12, and ATR–pS435 in unirradiated cells transfected with mutant AKAP12 when the original images showed positive signal
- confocal microscopic images of melanocytes in Figure 5A of *Sci. Rep.* 2017, by inserting blank image panels in the top row, panels 1 and 4, to falsely represent negative control experiments, and the quantification reported in Figure 5B that was derived from falsified and/or fabricated images in Figure 5A
- confocal microscopic images of melanocytes in Figure 1A, top row, panels 1, 3, 5, and 7, of *JBC* 2018, by inserting blank image panels to represent negative control experiments, and the quantification in Figure 1B that was derived from falsified and/or fabricated images in Figure 1A
- confocal microscopic images of melanocytes in Figure 2B of *JBC* 2018 by using two different cells from the same source image to falsely represent different experimental results: a cell for control conditions (top row, panel 1) and another cell to represent the outcome of the treatment conditions (top row, panel 8), as well as the quantification reported in Figure 2C that was derived from falsified and/or fabricated images in Figure 2B
- confocal microscopic images of melanocytes in Figure 3D of *JBC* 2018 by using two different cell images from the same source image to falsely represent different experimental results in: XPA–K215Q transfected cells without forskolin (column 3, rows 1 and 2 of lower right set of panels) and XPA–K215Q transfected cells with forskolin (column 4, rows 1 and 2 of lower right set of panels), and the quantification reported in Figure 3D that was derived from falsified and/or fabricated images in Figure 3D
- confocal microscopic images of melanocytes in *JBC* 2018 Figure 3D, column 1, rows 1 and 2, of ''XPA–WT'' set of panels, and in *JBC* 2018 Figure 3D, column 1, rows 1 and 2, of ''XPA–K63Q'' set of panels, by using the same image field to represent UV untreated cells ''XPA–WT'' and ''XPA–K63Q'' mutant, and the quantification reported in Figure 3D that was derived from falsified and/or fabricated images in Figure 3D
- confocal microscopic images of melanocytes in Figure 2D (images in column 1, rows 1 and 3) of *Mol. Cell* 2014 by reusing, manipulating, and relabeling an image to falsely represent the absence of [6–4]–PP in both vehicle-treated cells and forskolin-treated cells in negative control experiments
- confocal microscopic images of melanocytes in Figure 7C of *Mol. Cell* 2014 (and in Figure 2F of R01 CA207312–01, Figure 5A of R01 CA131075–06, and Figure 3B of R01 CA131075–06A1), by inserting blank image panels to falsely represent forskolin-treated cells and untreated cells without UV exposure, and the quantification reported in Figure 7C and Figure 5A of R01 CA131075–06 that was derived from falsified and/or fabricated images in Figure 7C
- confocal microscopic images of melanocytes in Figure 4E of R01 CA131075–06A1 and Figure 4C of R01 CA207312–01 by using cell images from the same source micrograph to falsely represent cAMP-augmented interaction between pS435–ATR and AKAP12

The following administrative actions have been implemented:

(1) For a period of four (4) years, beginning on July 18, 2022, Respondent is debarred from participating in ''covered transactions'' as defined in 42 CFR 180.200 and procurement transactions covered under the Federal Acquisition Regulation (48 CFR chapter 1).

(2) Respondent is prohibited from serving in any advisory capacity to PHS including, but not limited to, service on any PHS advisory committee, board, and/or peer review committee, or as a consultant for a period of four (4) years, beginning on July 18, 2022.

(3) In accordance with 42 CFR 93.407(a)(1) and 93.411(b), HHS will send to the journal Molecular Cell a notice of ORI's findings and the need for retraction of Mol. Cell 2014 Jun 19;54(6):999–1011; doi: 10.1016/j.molcel.2014.05.030.

Dated: August 8, 2022.

Wanda K. Jones,

Acting Director, Office of Research Integrity, Office of the Assistant Secretary for Health.

[FR Doc. 2022–17264 Filed 8–10–22; 8:45 am]

BILLING CODE 4150–31–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Cell Biology Integrated Review Group; Cellular Signaling and Regulatory Systems Study Section.

Date: September 26–27, 2022.

Time: 10:00 a.m. to 7:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: David Balasundaram, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5189, MSC 7840, Bethesda, MD 20892, 301–435–1022, *balasundaramd@csr.nih.gov*.

Name of Committee: Center for Scientific Review Special Emphasis Panel; NIH Research Enhancement Award (R15) in Oncological Sciences.

Date: September 28, 2022.

Time: 9:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Svetlana Kotliarova, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 6214, Bethesda, MD 20892, 301–594–7945, *kotliars@mail.nih.gov*.

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393–93.396, 93.837–93.844, 93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: August 8, 2022.

Miguelina Perez,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2022–17301 Filed 8–10–22; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Prospective Grant of Exclusive License, Inter-Institutional Agreement-Institution Lead: Multivalent Vaccines for Rabies Virus and Coronaviruses

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: The National Institute of Allergy and Infectious Diseases, an institute of the National Institutes of Health, Department of Health and Human Services, is contemplating the grant of an exclusive, sublicensable patent license to Thomas Jefferson University, located in Philadelphia, Pennsylvania to practice the inventions embodied in the patent applications listed in the Supplementary Information section of this notice.

DATES: Only written comments and/or applications for a license which are received by the Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases on or before August 26, 2022 will be considered.

ADDRESSES: Requests for copies of the patent applications, inquiries, and comments relating to the contemplated exclusive patent license should be directed to: Wade Green, Ph.D., Lead Technology Transfer and Patent Specialist, Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases (NIAID), 5601 Fishers Lane, Suite 6D, MSC9804, Rockville, MD 20852–9804, phone number 301–761–7505, or *wade.green@nih.gov.*

SUPPLEMENTARY INFORMATION: The following represents the intellectual property to be licensed under the prospective agreement: US Provisional Patent Application Number 62/318,087, filed 04 April 2016, titled ''Multivalent vaccines for rabies virus and coronaviruses'' (HHS Reference No. E–128–2016–0–US–01); PCT Application Number PCT/US17/25623, filed 31 March 2017, titled ''Multivalent vaccines for rabies virus and coronaviruses'' (HHS Reference No. E–128–2016–0–PCT–02); US Patent 11,041,170, issued 22 June 2021, titled ''Multivalent vaccines for rabies virus and coronaviruses'' (HHS Reference No. E–128–2016–0–US–05); US Patent Application Number 17/307,066, filed 04 May 2021, titled ''Multivalent vaccines for rabies virus and coronaviruses'' (HHS Reference No. E–128–2016–0–US–06); EPO Patent Application Number 2017718216.9, filed 31 March 2017, titled ''Multivalent vaccines for rabies virus and coronaviruses'' (HHS Reference No. E–128–2016–0–EP–03); and Saudi Arabian Patent Application Number 518400172, filed 04 October 2018, titled ''Multivalent vaccines for rabies virus and coronaviruses'' (HHS Reference No. E–128–2016–0–SA–04). All rights in these inventions have been assigned to Thomas Jefferson University, University of Maryland, Baltimore, and the Government of the United States of America as represented by the Secretary, Department of Health & Human Services.

The prospective patent license will be for the purpose of consolidating the patent rights to Thomas Jefferson University, one of the co-owners of said rights, for commercial development and marketing.

Consolidation of these co-owned rights is intended to expedite development of the invention, consistent with the goals of the Bayh-Dole Act codified as 35 U.S.C. 200–212.

The prospective interinstitutional agreement will include an exclusive license for NIAID's rights in these jointly owned patents. It will be sublicensable, and any sublicenses granted by Thomas Jefferson University will be subject to the provisions of 37 CFR part 401 and 404.

The subject patent rights are related to novel recombinant vaccine constructs based on a genetically modified, attenuated rabies virus vaccine vector expressing one or more coronavirus immunogenic polypeptides. These constructs elicit strong bi-valent immunogenic responses against both rabies virus and the respective coronavirus in animal models. The novel rabies virus vector used in these constructs was developed by Thomas Jefferson University prior to the co-development of the subject patent rights by Thomas Jefferson University, the University of Maryland, Baltimore, and NIAID.

This notice is made in accordance with 35 U.S.C. 209 and 37 CFR part 404. The prospective exclusive license will be royalty bearing, and may be granted unless within fifteen (15) days from the date of this published notice, the National Insitute of Allergy and Infectious Diseases receives written evidence and argument that establishes that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR part 404.

In response to this Notice, the public may file comments or objections. Comments and objections, other than those in the form of a license application, will not be treated confidentially, and may be made publicly available.

Complete license applications submitted in response to this Notice will be presumed to contain business confidential information and any release of information in these license applications will be made only as required and upon a request under *the Freedom of Information Act,* 5 U.S.C. 552.

Dated: August 5, 2022.

Surekha Vathyam,

Deputy Director, Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases.

[FR Doc. 2022–17214 Filed 8–10–22; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2022–0259]

Safe Loading, Safe Powering and Flotation Compliance Guidance for Electrically Powered Recreational Vessels Policy Letter

AGENCY: Coast Guard, DHS.

ACTION: Notice of availability and request for comments.

SUMMARY: The Coast Guard announces the online availability, of a new Coast Guard policy that establishes regulatory compliance guidance for recreational vessels less than 20 feet in length that use batteries to power their primary propulsion. This document provides consistent guidance for the design, inspection, and/or testing of recreational vessels using batteries to power their primary propulsion. The policy can be found at *https://safeafloat.com/policies-letters/.*

DATES: Comments must be submitted to the online docket via *https://www.regulations.gov* on or before November 9, 2022.

ADDRESSES: You may submit comments identified by docket number USCG–2022–0259 using the Federal eRulemaking Portal at *https://www.regulations.gov.* See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: For information about this document call or email Mr. Kevin Ferrie, Coast Guard; telephone 202–372–1075, email *kevin.b.ferrie@uscg.mil.*

SUPPLEMENTARY INFORMATION:

Public Participation and Comments

We encourage you to submit comments (or related material) on the draft guidance document in the docket. We will consider all submissions and may adjust our final action based on your comments. If you submit a comment, please include the docket number for this notice, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

We encourage you to submit comments through the Federal eRulemaking Portal at *http://www.regulations.gov.* If your material cannot be submitted using *http://www.regulations.gov,* contact the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions. Documents mentioned in this notice as being available in the docket, and public comments, are in our online docket at *http://www.regulations.gov* and can be viewed by following that website's instructions. We review all comments received, but we may choose not to post off-topic, inappropriate, or duplicate comments that we receive. If you go to the online docket and sign up for email alerts, you will be notified when comments are posted or a final document is published.

We accept anonymous comments. Comments we post to *https://www.regulations.gov* will include any personal information you have provided. For more about privacy and submissions in response to this document, see DHS's eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

Background and Purpose

Advances in battery technology have enabled new possibilities in boat power and propulsion systems. Currently, internal combustion engines using lead-acid or absorbent glass mat (AGM) batteries comprise the vast majority of recreational vessel propulsion installations. However, recent advancements in the development of lithium-ion (Li-ion) battery technology have made all-electric systems possible on some recreational vessels. Li-ion batteries are becoming more cost-effective and deliver one of the highest energy densities of any currently available battery technology, making these batteries and electric motors a viable alternative to internal combustion engines and traditional lead acid and AGM batteries for powering recreational vessels.

Current regulations for safe loading, safe powering and flotation in 33 CFR subchapter S were promulgated with the expectation that internal combustion engines for propulsion would be used and did not anticipate the use of batteries and electric motors for these functions. As a result, further clarification is needed to determine capacities required by 33 CFR subchapter S when internal combustion engines are replaced with electric motors and large Li-ion battery installations. The policy provides consistent guidance for the design, inspection, and/or testing of recreational vessels using batteries to power their primary propulsion.

This notice is issued under authority of 5 U.S.C. 552(a).

Dated: July 6, 2022.

Jeffrey A. Ludwig,

Chief, Recreational Boating Product Assurance Branch, United States Coast Guard.

[FR Doc. 2022–17288 Filed 8–10–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

Enhanced Transparency and Access to Information for Refund Requesters in the Automated Commercial Environment

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: General notice.

SUMMARY: This document announces that U.S. Customs and Border Protection (CBP) is making available a new report in the Automated Commercial Environment (ACE). ACE account users will have the option to electronically view and track their outstanding refund status and history for all refunds processed after the deployment date.

DATES: CBP will deploy the new Refunds ACE Report on August 29, 2022.

ADDRESSES: Comments concerning this notice may be submitted at any time via email to the ACE Collections Team, Investment Analysis Office, Office of Finance, U.S. Customs and Border Protection, at *ACECollections@cbp.dhs.gov,* with a subject line identifier reading ''ACE Collections Refund Release.''

FOR FURTHER INFORMATION CONTACT: Steven J. Grayson, Program Manager, Investment Analysis Office, Office of Finance, U.S. Customs and Border Protection, at (202) 579–4400, or *steven.j.grayson@cbp.dhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

A. Ongoing Modernization of the Collections System at U.S. Customs and Border Protection

U.S. Customs and Border Protection (CBP) is modernizing its collections system, allowing CBP to eventually retire the Automated Commercial System (ACS) and transfer all collections processes into the Automated Commercial Environment (ACE). This modernization effort, known as ACE Collections, includes the consolidation of the entire collections system into the ACE framework, which will enable CBP to utilize trade data from ACE modules, benefitting both the trade community and CBP with more streamlined and better automated payment processes. The new collections system in ACE will reduce costs for CBP, create a common framework that aligns with other initiatives to reduce manual collection processes, and provide additional flexibility to allow for future technological enhancements. ACE Collections will also provide the public with more streamlined and better automated payment processes with CBP, including better visibility into data regarding specific transactions.

ACE Collections supports the goals of the Customs Modernization Act (Pub. L. 103–182, 107 Stat. 2057, 2170, December 8, 1993, Title VI of the North American Free Trade Agreement Implementation Act), of modernizing the business processes that are essential to securing U.S. borders, speeding up the flow of legitimate shipments, and targeting illicit goods that require scrutiny. ACE Collections also fulfills the objectives of Executive Order 13659 (79 FR 10655, February 25, 2014), to provide the trade community with an integrated CBP trade system that facilitates trade, from entry of goods to receipt of duties, taxes, and fees.

CBP is implementing ACE Collections through phased releases in ACE. Release 1 was deployed on September 7, 2019, and dealt with statements integration, the collections information repository (CIR) framework, and automated clearinghouse (ACH) processing. *See* 84 FR 46749 and 84 FR 46678 (September 5, 2019). On September 23, 2019, a minor correction was made to the Release 1 notice. *See* 84 FR 49650 (September 23, 2019).

Release 2 was deployed on February 5, 2021, and focused on non-ACH electronic receivables and collections,

for Fedwire and *Pay.gov*, that included user fees, Harbor Maintenance Fee (HMF), and Seized Assets and Case Tracking System (SEACATS) payments. All of the changes in Release 2 were internal to CBP and did not affect the trade community; as such, no notice was published.

Release 3 was deployed on May 1, 2021, and primarily implemented technical changes to the liquidation process, and deferred tax bills, which were internal to CBP. *See* 86 FR 22696 (April 29, 2021). Release 3 also harmonized the determination of the due date for deferred tax payments with the entry summary date, streamlined the collections system, and provided importers of record with more flexibility and access to data when making deferred payments of internal revenue taxes owed on distilled spirits, wines, and beer imported into the United States.

Release 4 was deployed on October 18, 2021, and primarily implemented technical changes to the production and management of the internal CBP processes for supplemental bills, certain reimbursable bills, and non-reimbursable/miscellaneous bills issued by CBP to the public. *See* 86 FR 56968 (October 13, 2021). Release 4 also made available to importers of record, licensed customs brokers, and other ACE account users, an option to electronically view certain, unpaid, open bill details as reports in ACE Reports and adopted a new, enhanced format for the CBP Bill Form.

Most recently, Release 5 was deployed on March 21, 2022, and implemented internal technical changes to the production, tracking, and management of overdue bills and delinquent accounts and the bonds associated with them, including enhancements to the unpaid, open bill details reports in ACE Reports. *See* 87 FR 14899 (March 16, 2022). Release 5 also included a May 1, 2022, delayed deployment of minor modifications to the mailed Formal Demand on Surety for Payment of Delinquent Amounts Due (also informally referred to as the 612 Report) and the ability to electronically view 612 Reports in ACE Reports.

As explained more fully below, Release 6 will be deployed on August 29, 2022. Release 6 focuses on the management of refunds, and it includes mainly internal, technical changes to the ability to search, create, and review/certify those refunds. Release 6 also includes enhancements that improve transparency and access to information through ACE for ACE account users who have sought refunds from CBP to view certain information regarding the ACE account user's own refunds. Additional releases for ACE Collections will follow, and any further changes affecting the public will be announced by notice in the **Federal Register**, as needed.

B. Overview of CBP's Refund Process

CBP is authorized to collect duties, taxes, and fees from customs activities. *See generally* 19 U.S.C. 58a, 58b, 58b–1, 58c, 1505; 26 U.S.C. 4461. Pursuant to 19 U.S.C. 1505(a), importers of record are required to deposit with CBP the amount of duties and fees estimated to be payable for imports. CBP is also required to collect any increase or refund any excess deposits of duties and fees, with interest, as determined at the time of liquidation or reliquidation. *See* 19 U.S.C. 1505(b)–(c). CBP has additional and more specific authority to refund duties or other receipts for excess deposits; fees, charges, and exactions; fines, penalties, forfeitures; and deposits made prior to liquidation. *See* 19 U.S.C. 1520. Certain other statutes also provide CBP with additional, specific authority for refunds associated with necessary repairs (*see* 19 U.S.C. 1466); drawback (*see* 19 U.S.C. 1313); loss, deterioration, or damage (*see* 19 U.S.C. 1563); countervailing duty investigations (*see* 19 U.S.C. 1671c–1671e, 1677g); and antidumping investigations (*see* 19 U.S.C. 1673c–1673e, 1677g). Finally, 19 U.S.C. 983 outlines the general procedures for returning property seized during civil forfeiture proceedings.

The regulations for processing refunds are contained in part 24 of title 19 of the Code of Federal Regulations (CFR). Specifically, refunds for the overpayment of quarterly payments to express consignment carrier and centralized hub facilities are addressed in 19 CFR 24.23. Refunds associated with harbor maintenance fees are addressed in 19 CFR 24.24. Refunds of excessive duties, taxes, or interest connected to an entry are addressed in 19 CFR 24.36.[1] Setting off legal claims and judgments against debts owed to the United States for customs-related activities is addressed in 19 CFR 24.72. Specific rules for drawback can be reviewed in 19 CFR part 190 and in 19 CFR part 191 (for certain claims made on or before February 23, 2019). Finally, seized assets, handled under the seized assets and case tracking system (SEACATS), are addressed under subpart H of 19 CFR part 162.[2]

Generally, CBP refunds the overpayment of customs duties, taxes, and fees automatically. However, members of the public can request specific refunds through written or electronic requests, depending upon the type of refund sought.[3] Regardless of how a refund is requested, the processing aspects of all refund requests are handled the same way. Refund requests are initially processed by CBP and then processed by the U.S. Department of the Treasury (Treasury) prior to disbursement, if the request is valid. Generally, refunds are dispersed as checks to the address designated on CBP Form 4811 (Special Address Notification) on file with CBP for the specific requester or request.[4] Members of the public who have signed up to use ACH Refund and do not submit a CBP Form 4811 with an entry, or a refund request, will receive electronic disbursements of valid refunds to the account and location designated in ACH Refund.[5]

II. Availability of an Option for Electronic Viewing of Refund Status and History in ACE

Currently, members of the public are not informed of the status of their refunds while CBP and Treasury are processing the refund. CBP's deployment of Release 6 will enable ACE to pull, organize, and process data elements into a report that displays refund status and details, which an ACE account user may view in ACE Reports for certain information regarding its own refunds. After refunds are processed by CBP, the same refund data will appear in a consolidated format, the Refund ACE Report, alongside all other outstanding refunds attributed to the

[1] Additional unique interactions between refunds of duties, taxes, fees, or interest and the calculation of the accrual of interest are addressed in 19 CFR 24.3a.

[2] For more information concerning SEACATS please visit *https://www.dhs.gov/publication/dhscbppia-040-seized-assets-and-case-tracking-system?msclkid=330e2440d06311ec895071ecc7b3bd6b.*

[3] For example, certain requests can be mailed to the Revenue Division/Attention: Reimbursables, 6650 Telecom Drive, Suite 100, Indianapolis, Indiana 46278. Electronic requests are made and processed through the specific CBP-authorized electronic data interchange system designated for the refund. For example, modernized drawback claims may be requested within ACE and seized assets are processed in SEACATS.

[4] CBP Form 4811 may be electronically accessed at *https://www.cbp.gov/document/forms/form-4811-special-address-notification.*

[5] For additional information about ACH Refund, including how to sign-up and when to expect electronic refund, see *https://www.cbp.gov/trade/automated/ach/refund.*

same refund identification number and payee identification number.[6]

Within a business day after initial processing of refund data by CBP, including review and certification by CBP and transfer to Treasury for processing, ACE will reproduce the refund data in the corresponding Refund ACE Report. For each ACE account user, the report will include a summary of the total number of outstanding refunds requested, the total dollar amount requested in all outstanding refunds, and a consolidated table of all outstanding refunds and relevant data for the ACE account user's own refunds. The data elements appearing in the consolidated table will include:

- the specific refund's identification number;
- the requester's refund identification number;
- the requester's name;
- whom the refund will be in the care of, if applicable;
- the address the refund will be sent to;
- the date the refund request was made;
- the status of the refund in processing;
- the type of refund requested;
- the number of the document that produced the refund;[7]
- the total amount sought in the specific refund request;
- the check or ACH Trace number the refund will be disbursed through;
- whether the refund will be disbursed through ACH;
- the Center of Excellence and Expertise (Center) associated with the refund;
- the team associated with the refund; and
- the port code associated with the refund.

The report will only display outstanding and dispersed refund data, processed by ACE, after the deployment date. Refund data will not be removed from the report after the corresponding refund has been dispersed. As of now, refunds put into process before the deployment date of August 29, 2022, will not appear in the Refund ACE Report.

The outstanding refunds and historical details will be viewable only in ACE Reports. It is important to note that CBP will continue its current processes for communicating refund statuses and disbursements through physical mailings; however, members of the public that have signed up for ACH Refund will receive electronic communications. These physical mailings (for refunds via U.S. Treasury checks) and electronic communications (for ACH Refunds) will remain the primary source of legal notice. Information and data that appear in those communications will supersede the data elements that appear in ACE Reports and the public should continue to consult the physical mailings and electronic communications to ensure the proper processing of refunds. Furthermore, nothing in this document will change the specific timeframes within which the public is required to request refunds, such as the five-year period for drawback claims, nor does the document change the timeframes within which CBP is required to respond to refund requests.

Only members of the public who have an ACE Portal account can view their refunds report in ACE Reports. CBP encourages members of the public (including, but not limited to, importers of record and licensed customs brokers) who do not already have an ACE Portal account to apply for access to be able to view the new report.[8] CBP will provide any needed support for setting up ACE Portal accounts. The public may access the ACE Reports application through the ACE Secure Data Portal at *https://ace.cbp.dhs.gov*.[9] Within ACE Reports, an ACE account user may access the Refund ACE Report for its own refunds in the Workspace Module.[10]

Dated: August 5, 2022.

Crinley S. Hoover,

Acting Chief Financial Officer U.S. Customs and Border Protection.

[FR Doc. 2022–17250 Filed 8–10–22; 8:45 am]

BILLING CODE 9111–14–P

[6] The refund identification number is an ACE-specific number created for a refund requester the first time the requester requests a refund. CBP uses the refund identification number to track all refund requests made by the requester. The payee identification number is an importer's identification number, an employer's identification number, or an individual's social security number.

[7] This number can be associated with many CBP forms, such as CBP Form 7501, Entry Summary; CBP Form 368, CBP Collection Receipt Form; or the CBP Bill Form.

[8] The step-by-step instructions to apply for an ACE Portal account are available online at *https://www.cbp.gov/trade/automated/getting-started/portal-applying.*

[9] For more information about accessing, navigating, and personalizing ACE Reports, please review the ACE Reports Trainings online at *https://www.cbp.gov/trade/ace/training-and-reference-guides.*

[10] The Workspace Module is a window in ACE Reports that provides ACE account users access to their standard reports categorized by subject area (such as Cargo Release, Entry Summary, Manifest, etc.) and includes a navigation list (a folder structure of standard reports) and a viewer that displays the report selected. For additional information about the Workspace Module, please consult the specific ACE Report training at *https://www.cbp.gov/trade/ace/training-and-reference-guides* or the quick reference card at *https://www.cbp.gov/document/guidance/ace-reports-qrc-navigating-workspace-module.*

DEPARTMENT OF HOMELAND SECURITY

[Docket Number DHS–2022–0031]

Agency Information Collection Activities: IMMVI Veterans Portal, Webform 1601–0032

AGENCY: Department of Homeland Security (DHS).

ACTION: 30-Day notice and request for comments.

SUMMARY: The Department of Homeland Security, will submit the following Information Collection Request (ICR) to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995. DHS previously published this information collection request (ICR) in the **Federal Register** on Thursday, June 2, 2022 for a 60-day public comment period. No comment was received by DHS. The purpose of this notice is to allow additional 30-days for public comments.

DATES: Comments are encouraged and will be accepted until September 12, 2022. This process is conducted in accordance with 5 CFR 1320.1.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

SUPPLEMENTARY INFORMATION: On February 2, 2021 President Biden signed Executive Order 14012 Restoring Faith in Our Legal Immigration Systems and Strengthening Integration and Inclusion Efforts for New Americans. The role of the White House Domestic Policy Council (DPC) is to convene executive departments and agencies (agencies) to coordinate the formulation and implementation of the Administration's domestic policy objectives. Consistent with that role, the DPC shall coordinate the Federal Government's efforts to welcome and support immigrants, including refugees, and to catalyze State and local integration and inclusion efforts. In furtherance of these goals, the DPC shall convene a Task Force on New

Americans, which shall include members of agencies that implement policies that impact immigrant communities.

In response to E.O. 14012, on July 2, 2021, the Secretaries of Homeland Security and Veterans Affairs announced a new joint initiative, the Immigrant Military Members and Veterans Initiative (IMMVI), to support our Nation's noncitizen service members, veterans, and their immediate family members and directed their departments to identify and prioritize the return of military service members, veterans, and their immediate family members who were unjustly removed from the United States and ensure that they receive the benefits to which they may be entitled.

The information to be collected for self-disclosure would include: A-Number, USCIS Receipt Numbers (if any), Name, Date of Birth, Country of Residence, Email, Phone Number, Branch and Dates of Military Service, Address, reason for requesting assistance, and Name and Contact Information of Representative, if applicable.

To carry out the goals of IMMVI, DHS is proposing this new data collection to offer noncitizen current and former military members and their families an opportunity to seek assistance from DHS. The purpose of this information collection is to achieve efficiencies in making contact with individuals, better understand their needs, and track and report the number and types of inquiries received. This information will assist DHS in improving access to immigration services and VA health benefits. DHS plans to collect relevant information to provide assistance at the point the individual submits this information on the new website for benefits and immigration assistance. The information collected through this public facing webform will be voluntarily provided by the users. A new webform hosted on *dhs.gov* will be established to allow for individuals to submit the necessary information to make contact with the government to seek assistance. Additionally, the government provides an email address for those who are not able to access the webform. The government will then reach out to the individual to provide them with the necessary information needed to request immigration or VA benefits. The progress of the inquiries will be tracked in a DHS case management system.

The non-citizen current or former servicemember or their family member will submit their information through a webform on *dhs.gov.* The information will be transmitted to government systems and shared with the cooperating DHS components and agencies assisting the former military members and their families. All information related to the individual's request and action taken by the government will be noted in the case management system for tracking and appropriate follow through and action. If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83–I), describe any methods used to minimize burden.

All information received through the DHS website will be reviewed by trained DHS federal staff assigned to IMMVI and stored in a DHS case management system. No information will be shared with other agencies without the appropriate privacy releases from the individuals accessing the portal. All information received through the portal and any actions taken in response to the information collected will be stored in a DHS case management system.

This is a new information collection request.

The Office of Management and Budget is particularly interested in comments which:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

3. Enhance the quality, utility, and clarity of the information to be collected; and

4. Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submissions of responses.

Analysis

Agency: Department of Homeland Security (DHS).

Title: IMMVI Veterans Portal, Webform 1601—NEW.

OMB Number: 1601–0032.

Frequency: Annually.

Affected Public: Public.

Number of Respondents: 500.

Estimated Time per Respondent: 1.

Total Burden Hours: 13,535.00.

Robert Dorr,

Executive Director, Business Management Directorate.

[FR Doc. 2022–17300 Filed 8–10–22; 8:45 am]

BILLING CODE 9112–FL–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS–R6–ES–2022–N039; FXES11130600000–223–FF06E00000]

Endangered and Threatened Species; Receipt of Recovery Permit Applications

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of receipt of permit applications; request for comments.

SUMMARY: We, the U.S. Fish and Wildlife Service, have received applications for permits to conduct activities intended to enhance the propagation or survival of endangered species under the Endangered Species Act. We invite the public and local, State, Tribal, and Federal agencies to comment on these applications. Before issuing any of the requested permits, we will take into consideration any information that we receive during the public comment period.

DATES: We must receive your written comments by September 12, 2022.

ADDRESSES: *Document availability and comment submission:* Use one of the following methods to request documents or submit comments. Requests and comments should specify the applicant name(s) and application number(s) (*e.g.,* Smith, PER0123456 or ES056001):

- *Email: permitsR6ES@fws.gov.*
- *U.S. Mail:* Marjorie Nelson, Chief, Division of Ecological Services, U.S. Fish and Wildlife Service, 134 Union Blvd., Suite 670, Lakewood, CO 80228.

FOR FURTHER INFORMATION CONTACT: Robert Krijgsman, Recovery Permits Coordinator, Ecological Services, 303–236–4347 (phone), or *permitsR6ES@fws.gov* (email). Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION: We, the U.S. Fish and Wildlife Service, invite

the public to comment on applications for permits under section 10(a)(1)(A) of the Endangered Species Act, as amended (ESA; 16 U.S.C. 1531 *et seq.*). The requested permits would allow the applicants to conduct activities intended to promote recovery of species that are listed as endangered or threatened under the ESA.

Background

The Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*), prohibits certain activities with endangered and threatened species unless authorized by a Federal permit. The ESA and our implementing regulations in part 17 of title 50 of the Code of Federal Regulations (CFR) provide for the issuance of such permits and require that we invite public comment before issuing permits for activities involving endangered species.

A recovery permit issued by us under section 10(a)(1)(A) of the ESA authorizes the permittee to conduct activities with endangered species for scientific purposes that promote recovery or for enhancement of propagation or survival of the species. Our regulations implementing section 10(a)(1)(A) for these permits are found at 50 CFR 17.22 for endangered wildlife species, 50 CFR 17.32 for threatened wildlife species, 50 CFR 17.62 for endangered plant species, and 50 CFR 17.72 for threatened plant species.

Permit Applications Available for Review and Comment

Proposed activities in the following permit requests are for the recovery and enhancement of propagation or survival of the species in the wild. The ESA requires that we invite public comment before issuing these permits. Accordingly, we invite local, State, and Federal agencies; Tribes; and the public to submit written data, views, or arguments with respect to these applications. The comments and recommendations that will be most useful and likely to influence agency decisions are those supported by quantitative information or studies.

Permit No.	Applicant	Species	Location	Take activity	Permit action
PER0037587	U.S. Forest Service, Bridger-Teton National Forest, Pinedale, Wyoming.	• Kendall Warm Springs dace (*Rhinichthys osculus thermalis*).	Wyoming	• Capture, handle, release, and conduct habitat enhancements by removing invasive species.	Renew and amend.
ES–064682	Prairie Wildlife Research, Inc., Wellington, Colorado.	• Black-footed ferret (*Mustela nigripes*).	Arizona, Colorado, Kansas, Montana, New Mexico, South Dakota, Utah, and Wyoming.	• Survey, capture, anesthetize, vaccinate, mark, collect blood, tag, transport, and collect genetic samples.	Renew.
ES–131398	Lower Brule Sioux Tribe, Lower Brule, South Dakota.	• Black-footed ferret (*Mustela nigripes*).	South Dakota	• Survey, capture, anesthetize, vaccinate, mark, collect blood, tag, transport, and collect genetic samples.	Renew.
ES–186566	Western State Colorado University, Gunnison, Colorado.	• Uncompahgre fritillary butterfly (*Boloria acrocnema*).	Colorado	• Capture, handle, collect tissue, collect voucher specimens, and release.	Renew.
PER0047113	Friends of the Topeka Zoo, Inc., Topeka, Kansas.	• Salt Creek tiger beetle (*Cicindela nevadica lincolniana*).	Kansas and Nebraska.	• Receive, captively rear, maintain, and care for captive population; transport; and release into native habitat.	New.
ES–41329C	Manzanita Botanical Consulting, Salt Lake City, Utah.	• San Rafael cactus (*Pediocactus despainii*) • Wright fishhook cactus (*Sclerocactus wrightiae*).	Utah	• Remove and reduce to possession from lands under Federal jurisdiction.	Renew and amend.
ES–37337A	National Mississippi River Museum & Aquarium, Dubuque, Iowa.	• Wyoming toad (*Anaxyrus baxteri*).	Iowa, Wyoming	• Capture, handle, mark, release, propagate in captivity, transport, display for educational purposes, provide general husbandry, and research.	Renew and amend.
ES–051826	Louisville Zoological Gardens, Louisville, Kentucky.	• Black-footed ferret (*Mustela nigripes*).	Kentucky and other States where black-footed ferrets are being captively propagated.	• Propagate and care for while in captivity, collect and store biological samples, and transfer between other zoological facilities.	Renew.

Public Availability of Comments

Written comments we receive become part of the administrative 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 request in your comment that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

Next Steps

If we decide to issue permits to any of the applicants listed in this notice, we will publish a notice in the **Federal Register**.

Authority

We publish this notice under section 10(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Marjorie Nelson,

Acting Assistant Regional Director, U.S. Fish and Wildlife Service.

[FR Doc. 2022–17280 Filed 8–10–22; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[223A2100DD/AAKC001030/ A0A501010.999900 253G]

Self-Governance PROGRESS Act Negotiated Rulemaking Committee; Notice of Meeting

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice of virtual public meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, the Self-Governance PROGRESS Act Negotiated Rulemaking Committee (Committee), will hold their first virtual public meeting to negotiate and advise the Secretary of the Interior (Secretary) on a proposed rule to implement the Practical Reforms and Other Goals To Reinforce the Effectiveness of Self-Governance and Self-Determination for Indian Tribes Act of 2019 (PROGRESS Act).

DATES:

- *Meeting:* The meeting is open to the public to be held virtually on Monday, August 29, 2022; from 1:00 to 5:00 p.m. Eastern Time. Please see **SUPPLEMENTARY INFORMATION** below for details on how to participate.
- *Comments:* Interested persons are invited to submit comments on or before October 11, 2022. Please see **ADDRESSES** below for details on how to submit written comments.

ADDRESSES: Send your comments to Ms. Vickie Hanvey, Designated Federal Officer, Office of Self-Governance, Office of the Assistant Secretary—Indian Affairs, 1849 C Street NW, Mail Stop 3624, Washington, DC 20240; or by email to *comments@bia.gov.* Please reference the Committee in the subject line of your email.

FOR FURTHER INFORMATION CONTACT: Vickie Hanvey, Designated Federal Officer, *comments@bia.gov,* (918) 931–0745.

SUPPLEMENTARY INFORMATION: This meeting is being held under the PROGRESS Act, the Negotiated Rulemaking Act, and the Federal Advisory Committee Act. The Committee is to negotiate and reach consensus on recommendations for a proposed rule that will replace the existing regulations at 25 CFR part 1000. The Committee will be charged with developing proposed regulations for the Secretary's implementation of the PROGRESS Act's provisions regarding the DOI's Self-Governance Program. See Public Law 116–180.

The PROGRESS Act amends subchapter I of the Indian Self-Determination and Education Assistance Act (ISDEAA), 25 U.S.C. 5301 *et seq.,* which addresses Indian Self-Determination, and subchapter IV of the ISDEAA which addresses DOI's Tribal Self-Governance Program. The PROGRESS Act also authorizes the Secretary to adapt negotiated rulemaking procedures to the unique context of self-governance and the government-to-government relationship between the United States and Indian Tribes. The **Federal Register** notice published on May 18, 2022 (87 FR 30256) discussed the issues to be negotiated and the members of the Committee.

Meeting Agenda: Detailed information about Committee meetings, including detailed agendas, can be accessed at *https://www.bia.gov/service/progress-act.*

I. Welcome, blessing, and roll call;
II. Committee operating protocols;
III. Negotiated rulemaking process;
IV. Schedule and agenda setting for future meetings;
V. Committee caucus;
VI. Public comment; and
VII. Adjourn.

Meeting Accessibility/Special Accommodations: The Committee meeting will begin at 1:00 p.m. Eastern Time on Monday, August 29, 2022. Members of the public wishing to attend the meeting should visit *https://teams.microsoft.com/l/meetup-join/19%3ameeting_NzQ1ZjI1MDctYmE2ZC00NTEyLWFkZGMtZmUwYzE2NTg3NDA0%40thread.v2/0?context=%7b%22Tid%22%3a%220693b5ba-4b18-4d7b-9341-f32f400a5494%22%2c%22Oid%22%3a%2213321130-a12b-4290-8bcf-30387057bd7b%22%2c%22IsBroadcastMeeting%22%3atrue%7d&btype=a&role=a* for virtual access.

Please make requests in advance for sign language interpreter services, assistive listening devices, or other reasonable accommodations. We ask that you contact the person listed in the (see **FOR FURTHER INFORMATION CONTACT**) section of this notice at least seven (7) business days prior to the meeting to give the Department of the Interior sufficient time to process your request. All reasonable accommodation requests are managed on a case-by-case basis.

Individuals in the United States who are deaf, blind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

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.

Authority: 5 U.S.C. appendix 2.

Bryan Newland,

Assistant Secretary—Indian Affairs.

[FR Doc. 2022–17284 Filed 8–10–22; 8:45 am]

BILLING CODE 4337–15–P

DEPARTMENT OF THE INTERIOR

Office of the Secretary

[22XD4523WC; DS68664000; DWCFO0000.000000; DQ.QSO4A.22WD0000; OMB Control Number 1084–0033]

Agency Information Collection Activities; Private Rental Survey

AGENCY: Office of the Secretary, Office of Acquisition and Property Management, Interior.

ACTION: Notice of information collection; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, we, the Office of Acquisition and Property Management, Office of the Secretary, Department of the Interior are proposing to renew an information collection.

DATES: Interested persons are invited to submit comments on or before October 11, 2022.

ADDRESSES: Send your comments on this information collection request (ICR) by mail to Laura Walters, Quarters Rental Program Manager, Interior Business Center, 7301 W Mansfield Ave, MS D–2910, Denver, CO 80235, or fax 303–969–6336, or by email to *laura_a_walters@ibc.doi.gov.* Please reference Office of Management and Budget (OMB) Control Number 1084–0033 in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about this ICR, contact Laura Walters, Quarters Rental Program Manager, Interior Business Center, 7301 W Mansfield Ave, MS D–2910, Denver, CO 80235, or fax 303–969–6336, or by email to *laura_a_walters@ibc.doi.gov.*

Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States. You may also view the ICR at *http://www.reginfo.gov/public/do/PRAMain.*

SUPPLEMENTARY INFORMATION: In accordance with the Paperwork Reduction Act of 1995 (PRA, 44 U.S.C. 3501 *et seq.*) and 5 CFR 1320.8(d)(1), all information collections require approval under the PRA. We 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.

As part of our continuing effort to reduce paperwork and respondent burdens, we invite the public and other Federal agencies to comment on new, proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

We are especially interested in public comment addressing the following:

(1) Whether or not the collection of information is necessary for the proper performance of the functions of the agency, including whether or not the information will have practical utility;

(2) The accuracy of our estimate of the burden for this 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) How might the agency minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of response.

Comments that you submit in response to this notice are a matter of public record. We will include or summarize each comment in our request to OMB to approve this ICR. 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.

Abstract: Title 5 of the U.S. Code section 5911 authorizes Federal agencies to provide housing for Government employees under specified circumstances. In compliance with OMB Circular A–45 (Revised), Rental and Construction of Government Housing, a review of private rental market housing rates is required at least once every 5 years to ensure that the rental, utility charges, and charges for related services to occupants of Government Furnished Housing (GFH) are comparable to corresponding charges in the private sector. To avoid unnecessary duplication and inconsistent rental rates, the Department of the Interior, Office of the Secretary, Interior Business Center (on behalf of the Office of Acquisition and Property Management), conducts housing surveys in support of employee housing management programs for the Departments of the Interior (DOI), Agriculture, Commerce, Homeland Security, Justice, Transportation, Health and Human Services, Veterans Affairs, and other agencies. In this survey, two collection forms are used for rental unit data: OS–2000 covering ''Houses–Apartments–Mobile Homes,'' and OS–2001 covering ''Trailer Spaces.''

Respondents are typically property management companies or significant property owners in specific communities and are contacted by email or telephone. They may provide the rental unit information requested in OS–2000 and OS–2001 verbally, update rental data collected during a previous survey, enhance/complete rental data gathered from published sources, or provide lists of rental units they manage.

This collection of information provides data that is essential for DOI and the other Federal agencies to manage GFH in accordance with the requirements of OMB Circular A–45 (Revised). If this information were not collected from the public, DOI and the other Federal agencies providing GFH would be required to use professional real estate appraisals of private market rental costs, again, in accordance with OMB Circular A–45, but at an increased cost to the taxpayer.

Title of Collection: Private rental Survey.

OMB Control Number: 1084–0033.

Form Number: None.

Type of Review: Extension without change of a currently approved collection.

Respondents/Affected Public: Businesses and other for-profit institutions.

Total Estimated Number of Annual Respondents: 1,883.

Total Estimated Number of Annual Responses: OS–2000: 3,180; OS–2001: 359; Total: 3,539.

Estimated Completion Time per Response: 6 minutes for OS–2000 and 4 minutes for OS–2001.

Total Estimated Number of Annual Burden Hours: 342 hours.

Respondent's Obligation: Voluntary.

Frequency of Collection: Once per respondent every fourth year. Three or four of 16 total survey regions are surveyed every year. Therefore, a respondent or business may potentially be surveyed every fourth year if the exact same unit is surveyed again four years later. In addition, if an individual respondent or business is a significant

rental property manager or rental property owner in the community, they may provide multiple responses in the same survey. Approximately 63% of respondents furnish more than one rental unit (OS–2000 and OS–2001). About 60% of respondents validate published data (tax records, advertisement, etc.), 30% update their previous survey data, and 10% furnish a new OS–2000 or OS–2001. Participation is optional.

Total Estimated Annual Nonhour Burden Cost: None.

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 authority for this action is the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

Jeffrey Parrillo,

Departmental Information Collection Clearance Officer.

[FR Doc. 2022–17268 Filed 8–10–22; 8:45 am]

BILLING CODE 4334–63–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0034330; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Federal Bureau of Investigation, Art Theft Program, Washington, DC

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The Federal Bureau of Investigation (FBI) has completed an inventory of human remains in consultation with the appropriate Indian Tribes or Native Hawaiian organizations, and has determined that there is a cultural affiliation between the human remains and any present-day Indian Tribes or Native Hawaiian organizations. Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains should submit a written request to the FBI. If no additional requestors come forward, transfer of control of the human remains to the Indian Tribes or Native Hawaiian organizations stated in this notice may proceed.

DATES: Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains should submit a written request with information in support of the request to the FBI at the address in this notice by September 12, 2022.

FOR FURTHER INFORMATION CONTACT: Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (954) 931–3670, email *artifacts@ic.fbi.gov.*

SUPPLEMENTARY INFORMATION: Notice is here given in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3003, of the completion of an inventory of human remains under the control of the Federal Bureau of Investigation, Washington, DC. The human remains were removed from various locations throughout New Mexico and Arizona.

This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA, 25 U.S.C. 3003(d)(3). The determinations in this notice are the sole responsibility of the museum, institution, or Federal agency that has control of the Native American human remains. The National Park Service is not responsible for the determinations in this notice.

Consultation

A detailed assessment of the human remains was made by FBI professional staff in consultation with representatives of the Fort Sill Apache Tribe of Oklahoma; Gila River Indian Community of the Gila River Indian Reservation, Arizona; Hopi Tribe of Arizona; Mescalero Apache Tribe of the Mescalero Reservation, New Mexico; Pueblo of Acoma, New Mexico; Pueblo of Jemez, New Mexico; Pueblo of Laguna, New Mexico; Pueblo of Picuris, New Mexico; and the Salt River Pima-Maricopa Indian Community of the Salt River Reservation, Arizona (hereafter referred to as ''The Tribes'').

History and Description of the Remains

At various unknown dates, human remains representing, at minimum, 24 individuals were removed from undisclosed locations throughout New Mexico and Arizona. The human remains were transported to Indiana, where they remained as part of a private collection of Native American antiquities and cultural heritage. In April of 2014, the human remains were seized by the FBI as part of a criminal investigation. Although these human remains were heavily co-mingled at the time of recovery, a preponderance of the evidence shows that these human remains are Native American and were removed from the Southwest region of New Mexico and Arizona. No known individuals were identified. No associated funerary objects were present.

The composition of the soil matrix present on the human remains, in addition to other evidence obtained through non-invasive/non-destructive skeletal analysis, indicates that the remains of these individuals were taken from various undisclosed locations in the American Southwest, specifically New Mexico and Arizona. Based on biological, archeological, geographical, and anthropological information and expert opinion, these individuals are affiliated with the present-day Native American people of the American Southwest.

Determinations Made by the Federal Bureau of Investigation

Officials of the Federal Bureau of Investigation have determined that:

- Pursuant to 25 U.S.C. 3001(9), the human remains described in this notice represent the physical remains of 24 individuals of Native American/Southwest ancestry.
- Pursuant to 25 U.S.C. 3001(2), there is a relationship of shared group identity that can be reasonably traced between the Native American human remains and The Tribes.

Additional Requestors and Disposition

Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains should submit a written request with information in support of the request to the Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (954) 931–3670, email *artifacts@ic.fbi.gov,* by September 12, 2022. After that date, if no additional requestors have come forward, transfer of control of the human remains to The Tribes may proceed.

The Federal Bureau of Investigation is responsible for notifying The Tribes that this notice has been published.

Dated: August 3, 2022.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2022–17291 Filed 8–10–22; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0034329; PPWOCRADN0–PCU00RP14.R50000]

Notice of Intent To Repatriate Cultural Items: Federal Bureau of Investigation, Art Theft Program, Washington, DC

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The Federal Bureau of Investigation (FBI), in consultation with the appropriate Indian Tribes or Native Hawaiian organizations, has determined that the cultural items listed in this notice meet the definition of sacred objects. Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to claim these cultural items should submit a written request to the FBI. If no additional claimants come forward, transfer of control of the cultural items to the lineal descendants, Indian Tribes, or Native Hawaiian organizations stated in this notice may proceed.

DATES: Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to claim these cultural items should submit a written request with information in support of the claim to the FBI at the address in this notice by September 12, 2022.

FOR FURTHER INFORMATION CONTACT: Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (202) 324–5525, email *artifacts@ic.fbi.gov.*

SUPPLEMENTARY INFORMATION: Notice is here given in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3005, of the intent to repatriate cultural items under the control of the Federal Bureau of Investigation, Washington, DC, that meet the definition of sacred objects under 25 U.S.C. 3001.

This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA, 25 U.S.C. 3003(d)(3). The determinations in this notice are the sole responsibility of the museum, institution, or Federal agency that has control of the Native American cultural items. The National Park Service is not responsible for the determinations in this notice.

History and Description of the Cultural Items

At an unknown date, 411 cultural items were acquired in South Dakota and transported to Indiana, where they remained part of a private collection. In the spring of 2014, these cultural items were seized by the FBI as part of a criminal investigation.

Following consultation with the Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana; Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota; Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota; Flandreau Santee Sioux Tribe of South Dakota; Oglala Sioux Tribe (*previously* listed as Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota); Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota; Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota; Spirit Lake Tribe, North Dakota; Standing Rock Sioux Tribe of North & South Dakota; Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota; and the Yankton Sioux Tribe of South Dakota (hereafter referred to as ''The Tribes), these cultural items were determined to be culturally affiliated with The Tribes and were identified as sacred objects. During a series of consultation meetings, The Tribes reached consensus that the Oglala Sioux Tribe (*previously* listed as Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota) would request the repatriation of these sacred items on behalf of The Tribes, all of whom consider South Dakota to be their ancestral homeland.

Determinations Made by the Federal Bureau of Investigation

Officials of the Federal Bureau of Investigation have determined that:

- Pursuant to 25 U.S.C. 3001(3)(C), the 411 cultural items are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents.
- Pursuant to 25 U.S.C. 3001(2), there is a relationship of shared group identity that can be reasonably traced between the sacred objects and The Tribes.

Additional Requestors and Disposition

Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to claim these cultural items should submit a written request with information in support of the claim to the Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (202) 324–5525, email *artifacts@ic.fbi.gov,* by September 12, 2022. After that date, if no additional claimants have come forward, transfer of control of the sacred objects to The Tribes may proceed.

The Federal Bureau of Investigation is responsible for notifying The Tribes that this notice has been published.

Dated: August 3, 2022.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2022–17290 Filed 8–10–22; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0034331; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Federal Bureau of Investigation, Art Theft Program, Washington, DC

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The Federal Bureau of Investigation (FBI) has completed an inventory of human remains and associated funerary objects, in consultation with the appropriate Indian Tribes or Native Hawaiian organizations, and has determined that there is a cultural affiliation between the human remains and associated funerary objects and present-day Indian Tribes or Native Hawaiian organizations. Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains and associated funerary objects should submit a written request to the FBI. If no additional requestors come forward, transfer of control of the human remains and associated funerary objects to the lineal descendants, Indian Tribes, or Native Hawaiian organizations stated in this notice may proceed.

DATES: Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains and associated funerary objects should submit a written request with information in support of the request to the FBI at the address in this notice by September 12, 2022.

FOR FURTHER INFORMATION CONTACT: Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (202) 324–5525, email *artifacts@ic.fbi.gov.*

SUPPLEMENTARY INFORMATION: Notice is here given in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3003, of the completion of an inventory of human remains and associated funerary objects under the control of the Federal Bureau of Investigation, Washington, DC. The human remains and associated funerary objects were removed from various locations throughout South Dakota.

This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA, 25 U.S.C. 3003(d)(3). The determinations in this notice are the sole responsibility of the museum, institution, or Federal agency that has control of the Native American human remains and associated funerary objects. The National Park Service is not responsible for the determinations in this notice.

Consultation

A detailed assessment of the human remains was made by FBI professional staff in consultation with representatives of the Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana; Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota; Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota; Flandreau Santee Sioux Tribe of South Dakota; Oglala Sioux Tribe (*previously* listed as Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota); Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota; Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota; Spirit Lake Tribe, North Dakota; Standing Rock Sioux Tribe of North & South Dakota; Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota; and the Yankton Sioux Tribe of South Dakota (hereafter referred to as ''The Tribes'').

History and Description of the Remains

Over the course of several years beginning in the early 1960s, human remains representing, at minimum, 274 individuals were removed from various locations throughout South Dakota. Following their removal, the human remains were transported to Indiana, where they remained part of a private collection. In April of 2014, the human remains were seized by the FBI as part of a criminal investigation. No known individuals were identified. The 84 associated funerary objects are six projectile points, 54 Pottery sherds, five beads, 17 metal jewelry pieces, and two unidentified metal objects.

Based upon the physical evidence obtained through criminal investigation, osteological analysis, and tribal consultation, the FBI has determined that these human remains are Native American and that a relationship of shared group identity can be reasonably traced between the human remains and The Tribes. During a tribal consultation meeting held between December 17–19, 2021, The Tribes reached consensus that the Oglala Sioux Tribe (*previously* listed as Oglala Sioux Tribe of the Pine Ridge Reservation, South Dakota) would request the repatriation of these ancestral human remains and associated funerary objects on behalf of The Tribes, all of whom consider South Dakota their ancestral homeland.

Determinations Made by the Federal Bureau of Investigation

Officials of the Federal Bureau of Investigation have determined that:

- Pursuant to 25 U.S.C. 3001(9), the human remains described in this notice represent the physical remains of 274 individuals of Native American ancestry.
- Pursuant to 25 U.S.C. 3001(3)(A), the 84 objects described in this notice are reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony.
- Pursuant to 25 U.S.C. 3001(2), there is a relationship of shared group identity that can be reasonably traced between the Native American human remains and The Tribes.

Additional Requestors and Disposition

Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains and associated funerary objects should submit a written request with information in support of the request to the Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (202) 324–5525, email *artifacts@ic.fbi.gov,* by September 12, 2022. After that date, if no additional requestors have come forward, transfer of control of the human remains and associated funerary objects to The Tribes may proceed.

The Federal Bureau of Investigation is responsible for notifying The Tribes that this notice has been published.

Dated: August 3, 2022.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2022–17292 Filed 8–10–22; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0034334; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Alabama Department of Transportation, Montgomery, AL

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The Alabama Department of Transportation (ALDOT) has completed an inventory of human remains and associated funerary objects, in consultation with the appropriate Indian Tribes or Native Hawaiian organizations, and has determined that there is a cultural affiliation between the human remains and associated funerary objects and present-day Indian Tribes or Native Hawaiian organizations. Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains and associated funerary objects should submit a written request to ALDOT. If no additional requestors come forward, transfer of control of the human remains and associated funerary objects to the lineal descendants, Indian Tribes, or Native Hawaiian organizations stated in this notice may proceed.

DATES: Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains and associated funerary objects should submit a written request with information in support of the request to ALDOT at the address in this notice by September 12, 2022.

FOR FURTHER INFORMATION CONTACT: William B. Turner, Alabama Department of Transportation, 1409 Coliseum Blvd., Montgomery, AL 36110, telephone (334) 242–6144, email *turnerw@dot.state.al.us.*

SUPPLEMENTARY INFORMATION: Notice is here given in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3003, of the completion of an inventory

of human remains and associated funerary objects under the control of the Alabama Department of Transportation, Montgomery, AL. The human remains and associated funerary objects were removed from the Hook Creek Site (1Et182) near Turkeytown, in Etowah County, AL.

This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA, 25 U.S.C. 3003(d)(3). The determinations in this notice are the sole responsibility of the museum, institution, or Federal agency that has control of the Native American human remains and associated funerary objects. The National Park Service is not responsible for the determinations in this notice.

Consultation

A detailed assessment of the human remains was made by Tennessee Valley Archaeological Research and Alabama Department of Transportation professional staff in consultation with representatives of The Muscogee (Creek) Nation.

History and Description of the Remains

Between November of 2020 and January of 2021, human remains representing, at minimum, 13 individuals were removed from the Hook Creek Site (1Et182) in Etowah County, AL. The human remains were recovered during Phase III Data Recovery excavations conducted by Tennessee Valley Archaeological Research (TVAR) archeologists prior to the construction of additional lanes on US 411 (ALDOT project STPAA–0137(010)). No known individuals were identified. The 121 associated funerary objects are 57 pottery sherds, 41 pieces of stone debitage, one biface, four hafted bifaces, two greenstone fragments, one unmodified quartz cobble, one possible fish bone, four lots of unmodified stone, five lots of carbonized wood, one lot of fired clay, one lot of fire-cracked rock, one lot of blocky chert, and one lot of burial fill (approximately 300 cubic feet of unscreened burial fill segregated by individual burial feature per a request by The Muscogee (Creek) Nation that all burial fill be retained).

An early Late Archaic occupation of the site is indicated by the recovery of Ledbetter hafted bifaces and a possible associated structure, while a more extensive Late Woodland component associated with the Coker Ford phase is most evident in those portions of the site where human remains were encountered. The Coker Ford phase is defined primarily by a pottery assemblage dominated by Mulberry Creek Plain and small triangular arrow points, such as Hamilton and Madison projectile points (Walthall 1980:147–148). In addition to small triangular projectile points and a diagnostic Coker Ford ceramic assemblage recovered from site 1ET182, two Late Woodland radiocarbon assays were generated from carbonized materials. A sample from Feature 11 yielded a 2-sigma calibrated date of A.D. 765–895, A.D. 714–744, and A.D. 928–940 and a sample from Feature 1 yielded a 2-sigma calibrated date of A.D. 574–657. Based on information obtained during consultation, site 1ET182 is located within the historically Muskogean Language area.

Determinations Made by the Alabama Department of Transportation

Officials of the Alabama Department of Transportation have determined that:

- Pursuant to 25 U.S.C. 3001(9), the human remains described in this notice represent the physical remains of 13 individuals of Native American ancestry.
- Pursuant to 25 U.S.C. 3001(3)(A), the 121 objects described in this notice are reasonably believed to have been placed with or near individual human remains at the time of death or later as part of the death rite or ceremony.
- Pursuant to 25 U.S.C. 3001(2), there is a relationship of shared group identity that can be reasonably traced between the Native American human remains and associated funerary objects and The Muscogee (Creek) Nation.

Additional Requestors and Disposition

Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains and associated funerary objects should submit a written request with information in support of the request to William B. Turner, Alabama Department of Transportation, 1409 Coliseum Blvd., Montgomery, AL 36110, telephone (334) 242–6144, email *turnerw@dot.state.al.us,* by September 12, 2022. After that date, if no additional requestors have come forward, transfer of control of the human remains and associated funerary objects to The Muscogee (Creek) Nation may proceed.

The Alabama Department of Transportation is responsible for notifying The Muscogee (Creek) Nation that this notice has been published.

Dated: August 3, 2022.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2022–17295 Filed 8–10–22; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0034332; PPWOCRADN0–PCU00RP14.R50000]

Notice To Rescind a Notice of Inventory Completion: Minnesota Indian Affairs Council, Bemidji, MN

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The Minnesota Indian Affairs Council, Bemidji, MN, is rescinding a Notice of Inventory Completion published in the **Federal Register** on September 11, 2002.

FOR FURTHER INFORMATION CONTACT: Melissa Cerda, Minnesota Indian Affairs Council, 161 St. Anthony Avenue, Suite 919, St. Paul, MN 55103, telephone (651) 276–2797, email *melissa.cerda@state.mn.us.*

SUPPLEMENTARY INFORMATION: Notice was previously given in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3003, of the completion of an inventory of human remains and associated funerary objects under the control of the Minnesota Indian Affairs Council, Bemidji, MN. The human remains and associated funerary objects were removed from the Warm Springs, Cameron Creek, Galaz, and Hot Springs sites in Grant County, NM.

This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA, 25 U.S.C. 3003(d)(3). The determinations in this notice are the sole responsibility of the institution that has control of the Native American human remains and associated funerary objects. The National Park Service is not responsible for the determinations in this notice.

The Minnesota Indian Council is rescinding a Notice of Inventory Completion published in the **Federal Register** (67 FR 57623–57624, September 11, 2002). Transfer of control of the items listed in that notice has not occurred.

Rescindment

All paragraphs in the **Federal Register** notice of September 11, 2002 (67 FR 57623–57624) are deleted in their entirety.

The Minnesota Indian Council is responsible for notifying the Hopi Tribe of Arizona; Pueblo of Acoma, New Mexico; Pueblo of Isleta, New Mexico; Pueblo of Laguna, New Mexico; Pueblo of Pojoaque, New Mexico; Pueblo of San Ildefonso, New Mexico; Pueblo of Taos,

New Mexico; and the Zuni Tribe of the Zuni Reservation, New Mexico that this notice has been published.

Dated: August 3, 2022.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2022–17294 Filed 8–10–22; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0034333; PPWOCRADN0–PCU00RP14.R50000]

Notice of Intent To Repatriate Cultural Items: Federal Bureau of Investigation, Art Theft Program, Washington, DC

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The Federal Bureau of Investigation (FBI), in consultation with the appropriate Indian Tribes or Native Hawaiian organizations, has determined that the cultural items listed in this notice meet the definition of sacred objects. Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to claim these cultural items should submit a written request to the FBI. If no additional claimants come forward, transfer of control of the cultural items to the lineal descendants, Indian Tribes, or Native Hawaiian organizations stated in this notice may proceed.

DATES: Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to claim these cultural items should submit a written request with information in support of the claim to the FBI at the address in this notice by September 12, 2022.

FOR FURTHER INFORMATION CONTACT: Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (202) 324–5525, email *artifacts@ic.fbi.gov.*

SUPPLEMENTARY INFORMATION: Notice is here given in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3005, of the intent to repatriate cultural items under the control of the Federal Bureau of Investigation, Washington, DC, that meet the definition of sacred objects under 25 U.S.C. 3001.

This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA, 25 U.S.C. 3003(d)(3). The determinations in this notice are the sole responsibility of the museum, institution, or Federal agency that has control of the Native American cultural items. The National Park Service is not responsible for the determinations in this notice.

History and Description of the Cultural Items

At an unknown date, three cultural items were acquired and transported to the east coast, where they remained part of a private collection of Native American antiquities, art, and cultural heritage. In the spring of 2018, these cultural items were seized by the FBI as part of a criminal investigation. The three cultural items seized in 2018 were identified by the collector as ''masks.'' Following consultation, these cultural items were determined to be culturally affiliated with the Hopi Tribe of Arizona and were identified as sacred objects.

The Hopi Tribe of Arizona resides in northeastern Arizona. Its reservation occupies portions of Coconino and Navajo Counties, encompasses more than 1.5 million acres, and contains 12 villages on First Mesa, Second Mesa, and Third Mesa. The *Hopi Sinom* and their ancestors, the *Hisat Sinom,* have ancient ties to their *Hopi Tutskwa* (Aboriginal Hopi Lands), which they have occupied continuously for over 2,000 years. According to Hopi oral tradition, since time immemorial, the Hopi people have lived in *Hopi Tutskwa,* maintaining their cultural traditions and their ''sacred covenant with *Maasaw,* the ancient caretaker of the earth, to live as peaceful and humble farmers respectful of the land and its resources.'' This oral traditional information is supported by the archeological record, which places the Hopi in this region for thousands of years. Old Orabi (Third Mesa), for example, is the oldest settlement with standing ruins. It is identified as ''one of the oldest continuously inhabited settlements on the North American Continent dating back to A.D. 1100.''

Determinations Made by the Federal Bureau of Investigation

Officials of the Federal Bureau of Investigation have determined that:

- Pursuant to 25 U.S.C. 3001(3)(C), the three cultural items described above are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents.
- Pursuant to 25 U.S.C. 3001(2), there is a relationship of shared group identity that can be reasonably traced between the sacred objects and the Hopi Tribe of Arizona.

Additional Requestors and Disposition

Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to claim these cultural items should submit a written request with information in support of the claim to Federal Bureau of Investigation, FBI Headquarters, Attn: Supervisory Special Agent (SSA) Randolph J. Deaton IV, Art Theft Program, 935 Pennsylvania Avenue NW, Washington, DC 20535, telephone (202) 324–5525, email *artifacts@ic.fbi.gov,* by September 12, 2022. After that date, if no additional claimants have come forward, transfer of control of the sacred objects to the Hopi Tribe of Arizona may proceed.

The Federal Bureau of Investigation is responsible for notifying the Hopi Tribe of Arizona that this notice has been published.

Dated: August 3, 2022.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2022–17293 Filed 8–10–22; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0034328; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Library Company of Philadelphia, Philadelphia, PA

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: The Library Company of Philadelphia has completed an inventory of human remains, in consultation with the appropriate Indian Tribes or Native Hawaiian organizations, and has determined that there is a cultural affiliation between the human remains and present-day Indian Tribes or Native Hawaiian organizations. Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains should submit a written request to the Library Company of Philadelphia. If no additional requestors come forward, transfer of control of the human remains to the lineal descendants, Indian Tribes, or Native Hawaiian organizations stated in this notice may proceed.

DATES: Lineal descendants or representatives of any Indian Tribe or

Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains should submit a written request with information in support of the request to the Library Company of Philadelphia at the address in this notice by September 12, 2022.

FOR FURTHER INFORMATION CONTACT: Linda Kimiko August, Library Company of Philadelphia, 1314 Locust Street, Philadelphia, PA 19107, telephone (215) 546–3181, email *laugust@librarycompany.org.*

SUPPLEMENTARY INFORMATION: Notice is here given in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3003, of the completion of an inventory of human remains under the control of the Library Company of Philadelphia, Philadelphia, PA. The human remains most likely were removed from the banks of Geneva Lake in Walworth County, WI.

This notice is published as part of the National Park Service's administrative responsibilities under NAGPRA, 25 U.S.C. 3003(d)(3). The determinations in this notice are the sole responsibility of the museum, institution, or Federal agency that has control of the Native American human remains. The National Park Service is not responsible for the determinations in this notice.

Consultation

A detailed assessment of the human remains was made by the Library Company of Philadelphia professional staff in consultation with representatives of the Forest County Potawatomi Community, Wisconsin.

History and Description of the Remains

In the 1880s and 1890s, human remains representing, at minimum, one individual most likely were removed by Dr. George Julius Engelmann from the banks of Geneva Lake in Walworth County, WI. Dr. Engelmann (1847–1903) gave these remains to Dr. Silas Weir Mitchell (1829–1914) of Philadelphia. Mitchell's son, Langdon Mitchell (1862–1935), inherited the human remains. Following his death, the human remains went to Langdon's wife, Marian Lea Mitchell (1861–1944) who, in 1937, gave them to the Library Company of Philadelphia. No known individuals were identified. No associated funerary objects are present.

These human remains have been determined to be Native American based on the history of Dr. George Julius Engelmann's excavation of specific Native American burial sites; documentation from the College of Physicians of Philadelphia concerning their collection of human remains excavated by Engelmann and donated by Dr. Silas Weir Mitchell; and the available documentation. The Forest County Potawatomi Community, Wisconsin are the present-day descendants of the earlier group at the Walworth County, WI site.

Determinations Made by the Library Company of Philadelphia

Officials of the Library Company of Philadelphia have determined that:

- Pursuant to 25 U.S.C. 3001(9), the human remains described in this notice represent the physical remains of one individual of Native American ancestry.
- Pursuant to 25 U.S.C. 3001(2), there is a relationship of shared group identity that can be reasonably traced between the Native American human remains and the Forest County Potawatomi Community, Wisconsin.

Additional Requestors and Disposition

Lineal descendants or representatives of any Indian Tribe or Native Hawaiian organization not identified in this notice that wish to request transfer of control of these human remains should submit a written request with information in support of the request to Linda Kimiko August, Library Company of Philadelphia, 1314 Locust Street, Philadelphia, PA 19107, telephone (215) 546–3181, email *laugust@librarycompany.org,* by September 12, 2022. After that date, if no additional requestors have come forward, transfer of control of the human remains to the Forest County Potawatomi Community, Wisconsin may proceed.

The Library Company of Philadelphia is responsible for notifying the Forest County Potawatomi Community, Wisconsin that this notice has been published.

Dated: August 3, 2022.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2022–17287 Filed 8–10–22; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

Bureau of Ocean Energy Management

[Docket No. BOEM–2022–0034]

Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Future Wind Energy Development in the New York Bight; Extension of Comment Period

AGENCY: Bureau of Ocean Energy Management (BOEM), Interior.

ACTION: Notice of intent (NOI) to prepare a programmatic environmental impact statement (PEIS); extension of comment period.

SUMMARY: On July 15, 2022, BOEM published a notice of intent (NOI) in the **Federal Register** announcing the initiation of public scoping for a PEIS for future wind energy development in the New York Bight (NY Bight). The PEIS will analyze the potential impacts of wind energy development activities in the NY Bight, as well as the change in those impacts that could result from adopting programmatic avoidance, minimization, mitigation, and monitoring measures for the NY Bight. BOEM is extending the public scoping period. This notice announces a 15-day extension of the public scoping period from August 15, 2022, to August 30, 2022.

DATES: Comments must be received no later than August 30, 2022.

ADDRESSES: Written comments can be submitted in any of the following ways:

- Delivered by mail or delivery service, enclosed in an envelope labeled, ''NY BIGHT PEIS'' and addressed to Chief, Division of Environmental Assessment, Office of Environmental Programs, Bureau of Ocean Energy Management, 45600 Woodland Road VAM–OEP, Sterling, Virginia 20166; or
- *Through the regulations.gov web portal:* Navigate to *www.regulations.gov* and search for Docket No. BOEM–2022–0034. Select the document in the search results on which you want to comment, click on the ''Comment'' button, and follow the online instructions for submitting your comment. A commenter's checklist is available on the comment web page. Enter your information and comment, then click ''Submit.''

FOR FURTHER INFORMATION CONTACT: Jill Lewandowski, BOEM Office of Environmental Programs, 45600 Woodland Road, Sterling, Virginia 20166, telephone (703) 787–1703, or email *boemnybightpeis@boem.gov.*

SUPPLEMENTARY INFORMATION: Comments already submitted in response to the July 15, 2022, NOI do not need to be resubmitted. Please refer to the NOI published in the **Federal Register** (87 FR 42495) on July 15, 2022, for further information, including further instructions on how to submit comments.

Authority: 42 U.S.C. 4231 *et seq.* (NEPA, as amended) and 40 CFR 1506.6.

William Y. Brown,

Chief Environmental Officer, Bureau of Ocean Energy Management.

[FR Doc. 2022–16958 Filed 8–10–22; 8:45 am]

BILLING CODE 4310–MR–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–1306]

Certain Barcode Scanners, Mobile Computers With Barcode Scanning Capabilities, Scan Engines, RFID Printers, Components Thereof, and Products Containing Same; Notice of a Commission Determination Not To Review an Initial Determination Terminating the Investigation Due to a Settlement Agreement; Termination of Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission (''Commission'') has determined not to review an initial determination (''ID'') (Order No. 14) issued by the presiding administrative law judge (''ALJ'') terminating the above-captioned investigation based on a settlement agreement. The investigation is hereby terminated.

FOR FURTHER INFORMATION CONTACT: Carl P. Bretscher, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 205–2382. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For help accessing EDIS, please email *EDIS3Help@usitc.gov.* General information concerning the Commission may also be obtained by accessing its internet server at *https://www.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: The Commission instituted this investigation on March 11, 2022, based on a complaint, as supplemented, filed by Zebra Technologies Corp. of Lincolnshire, Illinois and Symbol Technologies, LLC of Holtsville, New York (''Zebra''). 87 FR 14039–040 (March 11, 2022). The complaint, as supplemented, alleges violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, in the importation into the United States, sale for importation, or sale in the United States after importation of certain barcode scanners, mobile computers with barcode scanning capabilities, scan engines, RFID printers, components thereof, and products containing the same by reason of infringement of certain claims of U.S. Patent Nos. 7,498,942; 8,411,177; and 10,667,219. *Id.* The complaint further alleges that a domestic industry exists. *Id.*

The Commission's notice of investigation named the following respondents: Honeywell International Inc. of Charlotte, North Carolina and Hand Held Products, Inc. of Charlotte, North Carolina (collectively, ''Respondents''). The Office of Unfair Import Investigations is not participating as a party in this investigation.

On July 11, 2022, Zebra and Respondents jointly moved to terminate the investigation based on a settlement agreement.

On July 12, 2022, the presiding ALJ issued the subject ID (Order No. 14) granting the joint motion to terminate. The ID finds that, pursuant to Commission Rules 210.21(a), (b) (19 CFR 210.21(a), (b)), Zebra and Respondents represent that there are no other agreements, express or implied, oral or written, between them regarding the subject matter of this investigation. The ID further finds that termination is proper because it would not be contrary to the public health and welfare, competitive conditions in the U.S. economy, the production of like or directly competitive conditions in the United States, or U.S. consumers. The ID further finds that termination is in the public interest, and it will conserve public and private resources.

No party filed a petition for review of the subject ID.

The Commission has determined not to review the subject ID. Accordingly, the investigation is hereby terminated.

The Commission vote for this determination took place on August 5, 2022.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 CFR part 210).

By order of the Commission.

Issued: August 8, 2022.

Katherine Hiner,

Acting Secretary to the Commission.

[FR Doc. 2022–17271 Filed 8–10–22; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–1311]

Certain Centrifuge Utility Platform and Falling Film Evaporator Systems and Components Thereof; Notice of a Commission Determination Not To Review an Initial Determination Amending the Notice of Investigation and Terminating the Investigation as to Respondent Rexford

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission (''Commission'') has determined not to review an initial determination (''ID'') (Order No. 20) of the presiding administrative law judge (''ALJ''), amending the notice of investigation to properly reflect respondent Rexford Management, LLC's (''Rexford'') name and then terminating the investigation as to Rexford based on withdrawal of the complaint.

FOR FURTHER INFORMATION CONTACT: Benjamin S. Richards, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 708–5453. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For help accessing EDIS, please email *EDIS3Help@usitc.gov.* General information concerning the Commission may also be obtained by accessing its internet server at *https://www.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: The Commission instituted this investigation on May 4, 2022. 87 FR 26372 (May 4, 2022). The complaint, as supplemented, alleged violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain centrifuge utility platform and falling film evaporator systems and components thereof by

reason of infringement of claims 1, 10, and 14 of U.S. Patent No. 10,814,338; claims 1, 10, and 18 of U.S. Patent No. 11,014,098; and claims 1, 9, and 19 of U.S. Patent No. 10,899,728. *Id.* The complaint further alleged that a domestic industry exists. *Id.* The Commission's notice of investigation named fifteen respondents, including ''Redford Management'' of Los Angeles, CA. *Id.* at 26373. The Office of Unfair Import Investigations is also participating in the investigation. *Id.*

On July 7, 2022, complainant Apeks, LLC (''Apeks'') moved to terminate the investigation as to Rexford based on withdrawal of the allegations in the complaint specific to Rexford. On July 19, 2022, the ALJ issued Order No. 20, the subject ID, granting Apeks's motion. The ID finds that Apeks's motion complies with the Commission's rules and that there are no extraordinary circumstances that would preclude termination of the investigation as to Rexford.

Separately, the ID explains that OUII and Rexford both noted that Rexford was incorrectly identified as ''Redford Management'' in the notice of institution of this investigation. To correct that error, the ID also finds that the notice of investigation should be amended to replace ''Redford Management'' with ''Rexford Management, LLC.''

No petitions for review of the ID were filed.

The Commission has determined not to review the subject ID.

The notice of institution of this investigation is amended to correctly identify Rexford by replacing ''Redford Management'' with ''Rexford Management, LLC.'' Rexford is hereby terminated from this investigation.

The Commission vote for this determination took place on August 4, 2022.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 CFR part 210).

While temporary remote operating procedures are in place in response to COVID–19, the Office of the Secretary is not able to serve parties that have not retained counsel or otherwise provided a point of contact for electronic service. Accordingly, pursuant to Commission Rules 201.16(a) and 210.7(a)(1) (19 CFR 201.16(a), 210.7(a)(1)), the Commission orders that the Complainant(s) complete service for any party/parties without a method of electronic service noted on the attached Certificate of Service and shall file proof of service on the Electronic Document Information System (EDIS).

By order of the Commission.

Issued: August 4, 2022.

Katherine Hiner,

Acting Secretary to the Commission.

[FR Doc. 2022–17204 Filed 8–10–22; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–1307]

Certain Barcode Scanners, Mobile Computers With Barcode Scanning Capabilities, Scan Engines, Components Thereof, and Products Containing the Same; Notice of a Commission Determination Not To Review an Initial Determination Terminating the Investigation Based on a Settlement; Termination of the Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission (''Commission'') has determined not to review an initial determination (''ID'') (Order No. 12) of the presiding administrative law judge (''ALJ''), terminating the investigation based on a settlement agreement.

FOR FURTHER INFORMATION CONTACT: Ronald A. Traud, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 205–3427. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For help accessing EDIS, please email *EDIS3Help@usitc.gov.* General information concerning the Commission may also be obtained by accessing its internet server at *https://www.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: The Commission instituted this investigation on March 15, 2022, based on a complaint filed on behalf of Zebra Technologies Corporation of Lincolnshire, Illinois, and Symbol Technologies, LLC of Holtsville, New York (together, ''Complainants''). 87 FR 14571 (March 15, 2022). The complaint alleged a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain barcode scanners, mobile computers with barcode scanning capabilities, scan engines, components thereof, and products containing the same by reason of the infringement of certain claims of U.S. Patent Nos. 7,478,753, 7,905,414, 9,800,749, and 10,732,380. *Id.* The complaint further alleged that an industry in the United States exists as required by section 337. *Id.* The Commission's notice of investigation named as respondents Honeywell International Inc. of Charlotte, North Carolina, and Hand Held Products, Inc. of Charlotte, North Carolina (together, ''Respondents''). *Id.* The Office of Unfair Import Investigations was not named as a party in this investigation. *Id.*

On July 11, 2022, pursuant to Commission Rule 210.21(b) (19 CFR 210.21(b)), Complainants and Respondents filed a joint motion to terminate this investigation in its entirety based on a settlement agreement. On July 18, 2022, the ALJ issued Order No. 12, the subject ID, which granted the motion. The ID found that the motion complied with the Commission's Rules and that terminating the investigation would not be contrary to the public interest. No petitions for review of the ID were filed.

The Commission has determined not to review the subject ID.

This investigation is hereby terminated in its entirety.

The Commission vote for this determination took place on August 5, 2022.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in part 210 of the Commission's Rules of Practice and Procedure (19 CFR part 210).

By order of the Commission.

Issued: August 8, 2022.

Katherine Hiner,

Acting Secretary to the Commission.

[FR Doc. 2022–17273 Filed 8–10–22; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Notice of Lodging of Proposed Consent Decree Under the Clean Air Act

On August 5, 2022, the United States' Department of Justice filed a Complaint

and lodged a proposed Consent Decree with the United States District Court for the Southern District of Indiana in *United States and the State of Indiana* v. *Metalworking Lubricants Company,* Civil Case No. 22–1560 (S.D. Ind.).

The proposed Consent Decree resolves several Clean Air Act and State law claims against Metalworking Lubricants Company (MLC), for alleged violations of the Clean Air Act and MLC's Federally Enforceable State Operating Permit, including for emitting more than 24 tons per year of organic hazardous air pollutants from MLC's used oil processing facility located in Indianapolis, Indiana. Under the settlement, MLC will install, maintain, operate, and continuously monitor a Carbon Adsorption System to control organic emissions from its oil and wastewater processing tanks. MLC also will install new tanks, oil-water separators, piping and/or ductwork, and make repairs to the existing tanks, oil-water separators, piping and/or ductwork to ensure that all existing, new, and replacement oil processing tanks and oil-water separators are covered by fixed roofs and vented directly through a closed-vent system to significantly reduce emissions. In addition, MLC will pay a civil penalty of $310,000, split equally between the United States and the State of Indiana.

The publication of this notice opens a 30-day period for public comment on the proposed Consent Decree. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and should refer to *United States and State of Indiana* v. *Metalworking Lubricants Company,* DJ# 90–5–2–1–11985, Civil Case No. 22–1560 (S.D. Ind.). All comments must be submitted no later than 30 days after the publication date of this notice. Comments may be submitted either by email or by mail:

To submit comments:	*Send them to:*
By email	*pubcomment-ees.enrd@usdoj.gov.*
By mail	Assistant Attorney General, U.S. DOJ—ENRD, P.O. Box 7611, Washington, DC 20044–7611.

During the public comment period, the proposed Consent Decree may be examined and downloaded at this Justice Department website: *https://www.justice.gov/enrd/consent-decrees.* We will provide a paper copy of the proposed Consent Decree upon written request and payment of reproduction costs. Please mail your request and enclose a check or money order for $19.75 cents per page reproduction cost) payable to the United States Treasury to: Consent Decree Library, U.S. DOJ—ENRD, P.O. Box 7611, Washington, DC 20044–7611.

Patricia A. McKenna,

Assistant Section Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. 2022–17236 Filed 8–10–22; 8:45 am]

BILLING CODE 4410–15–P

NATIONAL SCIENCE FOUNDATION

National Artificial Intelligence Research Resource Task Force; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation (NSF) announces the following meeting.

Name and Committee Code: National Artificial Intelligence Research Resource Task Force (84629).

Date and Time: September 12, 2022, 11 a.m. to 5 p.m. EDT.

*Place:*Virtual meeting attendance only; to attend the virtual meeting, please send your request for the virtual meeting link to the following email: *cmessam@nsf.gov.*

Type of Meeting: Open.

Contact Person: Brenda Williams, National Science Foundation, 2415 Eisenhower Avenue, Alexandria, VA 22314; Telephone: 703–292–8900; email: *bwilliam@nsf.gov.*

Purpose of Meeting: The Task Force shall investigate the feasibility and advisability of establishing and sustaining a National Artificial Intelligence Research Resource; and propose a roadmap detailing how such resource should be established and sustained.

Agenda: In this meeting, the Task Force will receive readouts from working-group discussions held on the topics of security controls and the user portal; resource allocation, usage policies, and evaluation processes; and associated issues of environmental sustainability, international collaboration, and legal considerations. The Task Force will also discuss related Federal initiatives and explore how the NAIRR could complement and interconnect with current and future efforts to provide data and computational resources to America's researchers.

Dated: August 5, 2022.

Crystal Robinson,

Committee Management Officer.

[FR Doc. 2022–17227 Filed 8–10–22; 8:45 am]

BILLING CODE 7555–01–P

NUCLEAR REGULATORY COMMISSION

[NRC–2022–0023]

Information Collection: Cooperation With States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of submission to the Office of Management and Budget; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has recently submitted a request for renewal of an existing collection of information to the Office of Management and Budget (OMB) for review. The information collection is entitled, ''Cooperation with States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities.''

DATES: Submit comments by September 12, 2022. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: David C. Cullison, NRC Clearance Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *Infocollects.Resource@nrc.gov.*

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC–2022–0023 when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

• *Federal Rulemaking Website:* Go to *https://www.regulations.gov* and search for Docket ID NRC–2022–0023.

• *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly available documents online in the ADAMS Public Documents collection at *https://www.nrc.gov/reading-rm/adams.html.* To begin the search, 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.* A copy of the collection of information and related instructions may be obtained without charge by accessing ADAMS Accession No. ML22088A049. The final supporting statement is available in ADAMS under Accession No. ML22201A125.

• *NRC's PDR:* You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to *PDR.Resource@nrc.gov* or call 1–800–397–4209 or 301–415–4737, between 8:00 a.m. and 4:00 p.m. Eastern Time (ET), Monday through Friday, except Federal holidays.

• *NRC's Clearance Officer:* A copy of the collection of information and related instructions may be obtained without charge by contacting the NRC's Clearance Officer, David C. Cullison, Office of the Chief Information Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *Infocollects.Resource@nrc.gov.*

B. Submitting Comments

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function.

The NRC cautions you not to include identifying or contact information in comment submissions that you do not want to be publicly disclosed in your comment submission. All comment submissions are posted at *https://www.regulations.gov* and entered into ADAMS. Comment submissions are not routinely edited to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the OMB, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that comment submissions are not routinely edited to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Background

Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the NRC recently submitted a request for renewal of an existing collection of information to OMB for review entitled, ''Cooperation with States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities.'' The NRC hereby informs potential respondents that an agency may not conduct or sponsor, and that a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

The NRC published a **Federal Register** notice with a 60-day comment period on this information collection on April 25, 2022 (87 FR 24348).

1. *The title of the information collection:* Cooperation with States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities.

2. *OMB approval number:* 3150–0163.

3. *Type of submission:* Extension.

4. *The form number, if applicable:* Not applicable.

5. *How often the collection is required or requested:* On occasion, when a State or Federally recognized Indian Tribe wishes to observe NRC inspections or perform inspections for the NRC or when a State or Federally recognized Indian Tribe wishes to negotiate an agreement to observe or perform inspections. States with an instrument of cooperation or a State Resident Engineer have both regular reporting and occasion-specific reporting.

6. *Who will be required or asked to respond:* States and Federally recognized Tribes interested in observing or performing inspections.

7. *The estimated number of annual responses:* 207.

8. *The estimated number of annual respondents:* 33.

9. *The estimated number of hours needed annually to comply with the information collection requirement or request:* 1219.

10. *Abstract:* States and Federally recognized Indian Tribes are involved and interested in monitoring the safety status of nuclear power plants and other nuclear production and utilization facilities. This involvement is, in part, in response to the States' and Tribes' public health and safety responsibilities and, in part, in response to their citizens' desire to become more knowledgeable about the safety of nuclear power plants and other nuclear production and utilization facilities. States and Tribes have identified NRC inspections as one possible source of knowledge for their personnel regarding NRC licensee activities, and the NRC, through the policy statement, ''Cooperation with States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities'' (57 FR 6462; February 25, 1992), has been amenable to accommodating States' and Tribes' needs in this regard. The NRC uses the information collected under this information collection requirement to allow States and Federally recognized Indian Tribes to participate in or observe inspections at NRC-licensed facilities. The types of information collected include written requests identifying specific inspections States and Tribes wish to observe; identification-related information required for site access to NRC-licensed facilities; training and qualifications of State and Tribal personnel participating in inspections; information required to define inspection roles for States and Tribes; and information to coordinate NRC and State and Tribal inspections.

Dated: August 5, 2022.

For the Nuclear Regulatory Commission.

David C. Cullison,

NRC Clearance Officer, Office of the Chief Information Officer.

[FR Doc. 2022–17216 Filed 8–10–22; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[NRC–2021–0230]

Information Collection: NRC Form 748 National Source Tracking Transaction Report

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of submission to the Office of Management and Budget; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has recently submitted a request for renewal of an existing collection of information to the Office of Management and Budget (OMB) for review. The information collection is entitled, NRC Form 748, ''National Source Tracking Transaction Report.''

DATES: Submit comments by September 12, 2022. Comments received after this date will be considered if it is practical

to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: David C. Cullison, NRC Clearance Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *Infocollects.Resource@nrc.gov.*

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC–2021–0230 when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- *Federal Rulemaking Website:* Go to *https://www.regulations.gov* and search for Docket ID NRC–2021–0230.
- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly available documents online in the ADAMS Public Documents collection at *https://www.nrc.gov/reading-rm/adams.html.* To begin the search, 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.* A copy of the collection of information and related instructions may be obtained without charge by accessing ADAMS Accession No. ML21356A003. The final supporting statement is available in ADAMS under Accession No. ML22153A109.
- *NRC's PDR*: You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to *PDR.Resource@nrc.gov* or call 1–800–397–4209 or 301–415–4737, between 8:00 a.m. and 4:00 p.m. Eastern Time (ET), Monday through Friday, except Federal holidays.
- *NRC's Clearance Officer*: A copy of the collection of information and related instructions may be obtained without charge by contacting the NRC's Clearance Officer, David C. Cullison, Office of the Chief Information Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *Infocollects.Resource@nrc.gov.*

B. Submitting Comments

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function.

The NRC cautions you not to include identifying or contact information in comment submissions that you do not want to be publicly disclosed in your comment submission. All comment submissions are posted at *https://www.regulations.gov* and entered into ADAMS. Comment submissions are not routinely edited to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the OMB, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that comment submissions are not routinely edited to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Background

Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the NRC recently submitted a request for renewal of an existing collection of information to OMB for review entitled, NRC Form 748, ''National Source Tracking Transaction Report.'' The NRC hereby informs potential respondents that an agency may not conduct or sponsor, and that a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

The NRC published a **Federal Register** notice with a 60-day comment period on this information collection on April 6, 2022 (87 FR 19983).

1. *The title of the information collection:* NRC Form 748, ''National Source Tracking Transaction Report.''
2. *OMB approval number:* 3150–0202.
3. *Type of submission:* Extension.
4. *The form number, if applicable:* NRC Form 748.
5. *How often the collection is required or requested:* On occasion (at completion of a transaction, and at inventory reconciliation).
6. *Who will be required or asked to respond:* Licensees that manufacture, receive, transfer, disassemble, or dispose of nationally tracked sources.
7. *The estimated number of annual responses:* 19,945 (14,000 online + 480 batch upload + 5,465 NRC Form 748).
8. *The estimated number of annual respondents:* 1,160 (210 NRC Licensees + 950 Agreement State Licensees).
9. *The estimated number of hours needed annually to comply with the information collection requirement or request:* 2,093.
10. *Abstract:* In 2006, the NRC amended its regulations to implement a National Source Tracking System (NSTS) for certain sealed sources. The amendments require licensees to report certain transactions involving nationally tracked sources to the NSTS. These transactions include manufacture, transfer, receipt, disassembly, or disposal of the nationally tracked source. This information collection is mandatory and is used to populate the NSTS. National source tracking is part of a comprehensive radioactive source control program for radioactive materials of greatest concern. The NRC and Agreement States uses the information provided by licensees in the NSTS to track the life cycle of the nationally tracked source from manufacture through shipment receipt, decay, and burial. NSTS enhances the ability of NRC and Agreement States to conduct inspections and investigations, communicate information to other government agencies, and verify legitimate ownership and use of nationally tracked sources.

Dated: August 5, 2022.

For the Nuclear Regulatory Commission.

David C. Cullison,

NRC Clearance Officer, Office of the Chief Information Officer.

[FR Doc. 2022–17218 Filed 8–10–22; 8:45 am]

BILLING CODE 7590–01–P

PENSION BENEFIT GUARANTY CORPORATION

Proposed Submission of Information Collection for OMB Review; Comment Request; Special Financial Assistance Information

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Notice of intent to request extension of OMB approval of information collection.

SUMMARY: The Pension Benefit Guaranty Corporation (PBGC) intends to request that the Office of Management and Budget (OMB) extend approval, without change, under the Paperwork Reduction Act, of a collection of information contained in PBGC's regulation on special financial assistance. This notice informs the public of PBGC's intent and solicits public comment on the collection of information.

DATES: Comments must be submitted on or before October 11, 2022.

ADDRESSES: Comments may be submitted by any of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Email: paperwork.comments@pbgc.gov.* Refer to OMB control number 1212–0074 in the subject line.
- *Mail or Hand Delivery:* Regulatory Affairs Division, Office of the General Counsel, Pension Benefit Guaranty Corporation, 445 12th Street SW, Washington, DC, 20024–2101.

Commenters are strongly encouraged to submit public comments electronically. PBGC expects to have limited personnel available to process public comments that are submitted on paper through mail. Until further notice, any comments submitted on paper will be considered to the extent practicable.

All submissions received must include the agency's name (Pension Benefit Guaranty Corporation, or PBGC) and refer to OMB control number 1212–0074. All comments received will be posted without change to PBGC's website, *http://www.pbgc.gov,* including any personal information provided. Commenters should not include any information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (''confidential business information''). Submission of confidential business information without a request for protected treatment constitutes a waiver of any claims of confidentiality.

Copies of the collection of information may be obtained by writing to Disclosure Division, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street NW, Washington, DC 20005–4026, or calling 202–229–4040 during normal business hours. If you are deaf or hard of hearing or have a speech disability, please dial 7–1–1 to access telecommunications relay services.

FOR FURTHER INFORMATION CONTACT: Melissa Rifkin (*rifkin.melissa@pbgc.gov*), Attorney, Regulatory Affairs Division, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street NW, Washington DC 20005–4026; 202–229–6563. If you are deaf or hard of hearing or have a speech disability, please dial 7–1–1 to access telecommunications relay services.

SUPPLEMENTARY INFORMATION: Section 4262 of the Employee Retirement Income Security Act of 1974 (ERISA) requires PBGC to provide special financial assistance (SFA) to certain financially troubled multiemployer plans upon application for assistance. Part 4262 of PBGC's regulations, ''Special Financial Assistance by PBGC,'' provides guidance to multiemployer pension plan sponsors on eligibility, determining the amount of SFA, content of an application for SFA, the process of applying, PBGC's review of applications, restrictions and conditions, and reporting and notice requirements.

To apply for SFA, a plan sponsor must file an application with PBGC and include information about the plan, plan documentation, and actuarial information, as specified in §§ 4262.6 through 4262.9. PBGC needs this information to review a plan's eligibility for SFA, priority group status (if applicable), and amount of requested SFA. PBGC estimates that over the next 3 years an annual average of 59 plan sponsors will file applications for SFA with an average annual hour burden of 590 hours and an average annual cost burden of $1,770,000.

Under § 4262.10(g), a plan sponsor may, but is not required to, file a lock-in application as a plan's initial application. The lock-in application contains basic information about the plan and a statement of intent to lock-in base data. PBGC needs the information in the lock-in application to ensure that a plan sponsor intends to lock-in the plan's data. PBGC estimates that over the next 3 years an annual average of 23 plan sponsors will file applications for SFA with an average annual hour burden of 23 hours and an average annual cost burden of $18,400.

Under § 4262.16(i), a plan sponsor of a plan that has received SFA must file an Annual Statement of Compliance with the restrictions and conditions under section 4262 of ERISA and part 4262 once every year through 2051. PBGC needs the information in the Annual Statement of Compliance to ensure that a plan is compliant with the imposed restrictions and conditions. PBGC estimates that over the next 3 years an annual average of 120 plan sponsors will file Annual Statements of Compliance with an average annual hour burden of 240 hours and an average annual cost burden of $288,000.

Under § 4262.15(c), a plan sponsor of a plan with benefits that were suspended under sections 305(e)(9) or 4245(a) of ERISA must issue notices of reinstatement to participants and beneficiaries whose benefits were suspended and are being reinstated. Participants and beneficiaries need the notice of reinstatement to better understand the calculation and timing of their reinstated benefits and, if applicable, make-up payments. PBGC estimates that over the next 3 years an average of 5 plans per year will be required to send notices to participants with suspended benefits. PBGC estimates that these notices will impose an average annual hour burden of 10 hours and average annual cost burden of $10,000.

Finally, under § 4262.16(d), (f), and (h) a plan sponsor must file a request for a determination from PBGC for approval for an exception under certain circumstances for SFA conditions under § 4262.16 relating to reductions in contributions, transfers or mergers, and settlement of withdrawal liability. PBGC needs the information required for a request for determination to determine whether to approve an exception from the specified condition of receiving SFA. PBGC estimates that beginning in 2023, PBGC will receive an average of 2.2 requests per year for determinations. PBGC estimates an average annual hour burden of 7.6 hours and average annual cost burden of $19,000.

The estimated aggregate average annual hour burden for the next 3 years for the information collection in part 4262 is 870.6 hours for employer and fund office administrative, clerical, and supervisory time. The estimated aggregate average annual cost burden for the next three years for the information collection request in part 4262 is $2,105,400, for approximately 5,264 contract hours assuming an average hourly rate of $400 for work done by outside actuaries and attorneys. The actual hour burden and cost burden per plan will vary depending on plan size and other factors.

The collection of information under the regulation has been approved by OMB under control number 1212–0074 (expires January 31, 2023). PBGC intends to request that OMB extend its approval for 3 years. 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.

PBGC is soliciting public comments to—

• Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

• Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodologies and assumptions used;

• Enhance the quality, utility, and clarity of the information to be collected; and

• Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Issued in Washington, DC.

Hilary Duke,

Assistant General Counsel for Regulatory Affairs, Pension Benefit Guaranty Corporation.

[FR Doc. 2022–17275 Filed 8–10–22; 8:45 am]

BILLING CODE 7709–02–P

OFFICE OF PERSONNEL MANAGEMENT

Submission for Review: Revision of an Existing Information Collection, Combined Federal Campaign Charity Applications, OPM Forms 1647–A, –B, and –E, 3206–0269

AGENCY: Office of Personnel Management.

ACTION: 60-Day notice and request for comments.

SUMMARY: The Combined Federal Campaign (CFC), Office of Personnel Management (OPM) offers the general public and other federal agencies the opportunity to comment on a revision to an existing information collection request, CFC Applications OMB Control No. 3206–0269, which includes OPM Forms 1647–A, –B, and –E. As required by the Paperwork Reduction Act of 1995, as amended by the Clinger-Cohen Act, OPM is soliciting comments for this collection.

DATES: Comments are encouraged and will be accepted until October 11, 2022. This process is conducted following 5 CFR 1320.1.

ADDRESSES: Interested persons are invited to submit written comments on the proposed information collection to the U.S. Office of Personnel Management, Office of Combined Federal Campaign, 1900 E Street NW, Washington, DC 20415, Attention: Vanessa Bell or sent via electronic mail to *cfc@opm.gov.*

FOR FURTHER INFORMATION CONTACT: A copy of this ICR, with applicable supporting documentation, may be obtained by contacting the U.S. Office of Personnel Management, Office of Combined Federal Campaign, 1900 E Street NW, Washington, DC 20415, Attention: Vanessa Bell or sent via electronic mail to *cfc@opm.gov;* or by phone at 202–936–3406.

SUPPLEMENTARY INFORMATION: The OPM is particularly interested in comments for this collection that:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

3. Enhance the quality, utility, and clarity of the information to be collected; and

4. Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submissions of responses.

The CFC is the world's largest and most successful annual workplace philanthropic giving campaign, with 36 CFC Zones throughout the country and overseas raising millions of dollars each year. The mission of the CFC is to promote and support philanthropy through a program that is employee-focused, cost-efficient, and effective in providing all federal employees the opportunity to improve the quality of life for all.

The CFC Eligibility Applications are used to review the eligibility of national, international, and local charitable organizations that wish to participate in the CFC. The proposed revision adds an optional short question in which charities can choose to share the types of volunteer jobs they offer for Federal employees. The form shall include a drop-down list by which charities can choose if they wish to do so.

Analysis

Agency: Combined Federal Campaign, Office of Personnel Management.

Title: OPM Forms 1647–A, –B, and –E.

OMB Number: OMB Control No. 3206–0269.

Frequency: Annually.

Affected Public: Individuals or Households.

Number of Respondents: 6,000.

Estimated Time per Respondent: 2 hours.

Total Burden Hours: 12,000 hours.

U.S. Office of Personnel Management.

Kellie Cosgrove Riley,

Executive Director, Office of Privacy and Information Management.

[FR Doc. 2022–17045 Filed 8–10–22; 8:45 am]

BILLING CODE 6325–46–P

POSTAL REGULATORY COMMISSION

[Docket Nos. MC2022–94 and CP2022–98]

New Postal Products

AGENCY: Postal Regulatory Commission.

ACTION: Notice.

SUMMARY: The Commission is noticing a recent Postal Service filing for the Commission's consideration concerning a negotiated service agreement. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

DATES: *Comments are due:* August 15, 2022.

ADDRESSES: Submit comments electronically via the Commission's Filing Online system at *http://www.prc.gov.* Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

FOR FURTHER INFORMATION CONTACT: David A. Trissell, General Counsel, at 202–789–6820.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction
II. Docketed Proceeding(s)

I. Introduction

The Commission gives notice that the Postal Service filed request(s) for the Commission to consider matters related to negotiated service agreement(s). The request(s) may propose the addition or removal of a negotiated service agreement from the market dominant or the competitive product list, or the modification of an existing product currently appearing on the market dominant or the competitive product list.

Section II identifies the docket number(s) associated with each Postal

Service request, the title of each Postal Service request, the request's acceptance date, and the authority cited by the Postal Service for each request. For each request, the Commission appoints an officer of the Commission to represent the interests of the general public in the proceeding, pursuant to 39 U.S.C. 505 (Public Representative). Section II also establishes comment deadline(s) pertaining to each request.

The public portions of the Postal Service's request(s) can be accessed via the Commission's website (*http://www.prc.gov*). Non-public portions of the Postal Service's request(s), if any, can be accessed through compliance with the requirements of 39 CFR 3011.301.[1]

The Commission invites comments on whether the Postal Service's request(s) in the captioned docket(s) are consistent with the policies of title 39. For request(s) that the Postal Service states concern market dominant product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3622, 39 U.S.C. 3642, 39 CFR part 3030, and 39 CFR part 3040, subpart B. For request(s) that the Postal Service states concern competitive product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3632, 39 U.S.C. 3633, 39 U.S.C. 3642, 39 CFR part 3035, and 39 CFR part 3040, subpart B. Comment deadline(s) for each request appear in section II.

II. Docketed Proceeding(s)

1. Docket No(s).: MC2022–94 and CP2022–98; *Filing Title:* USPS Request to Add Priority Mail Contract 754 to Competitive Product List and Notice of Filing Materials Under Seal; *Filing Acceptance Date:* August 5, 2022; *Filing Authority:* 39 U.S.C. 3642, 39 CFR 3040.130 through 3040.135, and 39 CFR 3035.105; *Public Representative:* Kenneth R. Moeller; *Comments Due:* August 15, 2022.

This Notice will be published in the **Federal Register**.

Jennie L. Jbara,

Alternate Certifying Officer.

[FR Doc. 2022–17270 Filed 8–10–22; 8:45 am]

BILLING CODE 7710–FW–P

[1] *See* Docket No. RM2018–3, Order Adopting Final Rules Relating to Non-Public Information, June 27, 2018, Attachment A at 19–22 (Order No. 4679).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–95433; File No. SR–MEMX–2022–22]

Self-Regulatory Organizations; MEMX LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the Exchange's Fee Schedule

August 5, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 29, 2022, MEMX LLC (''MEMX'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing with the Commission a proposed rule change to amend the Exchange's fee schedule applicable to Members [3] (the ''Fee Schedule'') pursuant to Exchange Rules 15.1(a) and (c). The Exchange proposes to implement the changes to the Fee Schedule pursuant to this proposal on August 1, 2022. The text of the proposed rule change is provided in Exhibit 5.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposed rule change is to amend the Fee Schedule to: (i) modify the required criteria under the Step-Up Additive Rebate; (ii) modify the required criteria under the Liquidity Removal Tier 1; and (iii) increase the rebate for executions of all orders in securities priced below $1.00 per share that add displayed liquidity to the Exchange (''Added Displayed Sub-Dollar Volume'').

The Exchange first notes that it operates in a highly competitive market in which market participants can readily direct order flow to competing venues if they deem fee levels at a particular venue to be excessive or incentives to be insufficient. More specifically, the Exchange is only one of 16 registered equities exchanges, as well as a number of alternative trading systems and other off-exchange venues, to which market participants may direct their order flow. Based on publicly available information, no single registered equities exchange currently has more than approximately 15.5% of the total market share of executed volume of equities trading.[4] Thus, in such a low-concentrated and highly competitive market, no single equities exchange possesses significant pricing power in the execution of order flow, and the Exchange currently represents approximately 3.5% of the overall market share.[5] The Exchange in particular operates a ''Maker-Taker'' model whereby it provides rebates to Members that add liquidity to the Exchange and charges fees to Members that remove liquidity from the Exchange. The Fee Schedule sets forth the standard rebates and fees applied per share for orders that add and remove liquidity, respectively. Additionally, in response to the competitive environment, the Exchange also offers tiered pricing, which provides Members with opportunities to qualify for higher rebates or lower fees where certain volume criteria and thresholds are met. Tiered pricing provides an incremental incentive for Members to strive for higher tier levels, which provides increasingly higher benefits or discounts for satisfying increasingly more stringent criteria.

Step-Up Additive Rebate

The Exchange currently offers the Step-Up Additive Rebate under which the Exchange provides an additive rebate of $0.0002 per share that is in addition to the otherwise applicable rebate for a qualifying Member's executions of certain orders in securities

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Exchange Rule 1.5(p).

[4] Market share percentage calculated as of July 28, 2022. The Exchange receives and processes data made available through consolidated data feeds (*i.e.,* CTS and UTDF).

[5] *Id.*

priced at or above $1.00 per share that add displayed liquidity to the Exchange (''Added Displayed Volume'').[6] Currently, a Member qualifies for the Step-Up Additive Rebate by achieving one of the following two alternative criteria: (1) a Step-Up ADAV[7] (excluding Retail Orders) from April 2022 that is equal to or greater than 0.07% of the TCV;[8] or (2) an ADAV that is equal to or greater than 0.70% of the TCV. Now, the Exchange proposes to modify the required criteria such that a Member would now qualify for the Step-Up Additive Rebate by achieving one of the following two alternative criteria: (1) a Step-Up ADAV (excluding Retail Orders) from April 2022 that is equal to or greater than 0.07% of the TCV; or (2) a Step-Up ADAV from July 2022 that is equal to or greater than 0.05% of the TCV and an ADAV that is equal to or greater than 0.30% of the TCV.

Thus, the proposed change would keep one of the two alternative criteria (*i.e.,* the April 2022 Step-Up ADAV threshold) intact and replace the other of such alternative criteria (*i.e.,* the overall ADAV threshold) with a new alternative criteria that includes an overall ADAV threshold that is lower than the existing overall ADAV threshold being replaced, as well as a July 2022 Step-Up ADAV threshold. The proposed new alternative criteria is intended to encourage additional Members to strive to qualify for the Step-Up Additive Rebate by providing a new alternative criteria that includes a lower overall ADAV threshold than before, which is easier to achieve, as well a reasonable July 2022 Step-Up ADAV threshold, each of which is designed to encourage the submission of additional liquidity-adding orders to the Exchange. While the Exchange has no way of predicting with certainty how the proposed new criteria will impact Member activity, the Exchange expects that more Members will strive to qualify for such tier than currently do, resulting in the submission of additional order flow to the Exchange. The Exchange is not proposing to change the rebate provided under the Step-Up Additive Rebate.

Liquidity Removal Tier 1

The Exchange currently charges a standard fee of $0.0030 per share for executions of orders in securities priced at or above $1.00 per share that remove liquidity from the Exchange (''Removed Volume''). The Exchange also currently offers Liquidity Removal Tier 1 under which qualifying Members are charged a discounted fee of $0.0029 per share for executions of Removed Volume by achieving one of the following two alternative criteria: (1) a Remove ADV[9] that is equal to or greater than 0.30% of the TCV and a Step-Up ADAV from April 2022 that is equal to or greater than 0.10% of the TCV; or (2) an ADV that is equal to or greater than 1.00% of the TCV. Now, the Exchange proposes to modify the required criteria such that a Member would now qualify for Liquidity Removal Tier 1 by achieving one of the following two alternative criteria: (1) an ADV that is equal to or greater than 0.45% of the TCV and an ADAV that is equal to or greater than 0.20% of the TCV; or (2) an ADV that is equal to or greater than 1.00% of the TCV.

Thus, the proposed change would keep one of the two alternative criteria (*i.e.,* the overall ADV threshold) intact and replace the other of such alternative criteria (*i.e.,* the Remove ADV and April 2022 Step-Up ADAV thresholds) with a new alternative criteria that includes an overall ADV threshold that is lower than the overall ADV threshold in the other remaining alternative criteria, as well as an overall ADAV threshold. As the proposed new alternative criteria is based on overall ADV and ADAV thresholds, it is intended to encourage Members to maintain or increase their order flow, including liquidity-adding orders, to the Exchange, thereby contributing to a deeper and more liquid market to the benefit of all Members. The Exchange is not proposing to change the fee charged under Liquidity Removal Tier 1.

Added Displayed Sub-Dollar Volume

The Exchange currently provides a rebate of 0.05% of the total dollar value of the transaction for all executions of Added Displayed Sub-Dollar Volume. This rebate applies to all Members, including those that qualify for any of the Exchange's pricing tiers. Now, the Exchange proposes to increase the rebate for all executions of Added Displayed Sub-Dollar Volume to 0.10% of the total dollar value of the transaction, which would similarly apply to all Members as the current rebate for such executions does today.

The purpose of increasing the rebate for executions of Added Displayed Sub-Dollar Volume is to incentivize Members to submit additional orders of Added Displayed Sub-Dollar Volume to the Exchange. The Exchange notes that overall volumes in sub-dollar securities in the U.S. equities market have had significant increases at certain times, however, the Exchange's volumes in these securities have been disproportionately lower than certain other venues, relative to the overall market share of the Exchange and such other venues, during these times. Thus, the Exchange's proposal to increase the rebate for executions of Added Displayed Sub-Dollar Volume is designed to encourage the submission of additional orders in sub-dollar securities to the Exchange in order to bring the Exchange's volumes in such securities in line with its overall market share in a manner that deepens liquidity and promotes price discovery in such securities to the benefit of all Members.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6 of the Act,[10] in general, and with Sections 6(b)(4) and 6(b)(5) of the Act,[11] in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

As discussed above, the Exchange operates in a highly fragmented and competitive market in which market participants can readily direct order flow to competing venues if they deem fee levels at a particular venue to be excessive or incentives to be insufficient, and the Exchange represents only a small percentage of the overall market. The Commission and the courts have repeatedly expressed

[6] The Step-Up Additive Rebate applies to all executions of Added Displayed Volume, except: (i) orders that establish the national best bid or offer (''NBBO'') if such Member qualifies for the Exchange's NBBO Setter Tier; or (ii) Retail Orders. ''Retail Order'' means an agency or riskless principal order that meets the criteria of FINRA Rule 5320.03 that originates from a natural person and is submitted to the Exchange by a Retail Member Organization, provided that no change is made to the terms of the order with respect to price or side of market and the order does not originate from a trading algorithm or any other computerized methodology. *See* Exchange Rule 11.21(a).

[7] As set forth on the Fee Schedule, ''ADAV'' means the average daily added volume calculated as the number of shares added per day, which is calculated on a monthly basis, and ''Step-Up ADAV'' means ADAV in the relevant baseline month subtracted from current ADAV.

[8] As set forth on the Fee Schedule, ''TCV'' means total consolidated volume calculated as the volume reported by all exchanges and trade reporting facilities to a consolidated transaction reporting plan for the month for which the fees apply.

[9] As set forth on the Fee Schedule, ''ADV'' means average daily volume calculated as the number of shares added or removed, combined, per day, which is calculated on a monthly basis, and ''Remove ADV'' means ADV with respect to orders that remove liquidity.

[10] 15 U.S.C. 78f.

[11] 15 U.S.C. 78f(b)(4) and (5).

their preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. In Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and also recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [12]

The Exchange believes that the ever-shifting market share among the exchanges from month to month demonstrates that market participants can shift order flow or discontinue to reduce use of certain categories of products, in response to new or different pricing structures being introduced into the market. Accordingly, competitive forces constrain the Exchange's transaction fees and rebates, and market participants can readily trade on competing venues if they deem pricing levels at those other venues to be more favorable. The Exchange believes the proposal reflects a reasonable and competitive pricing structure designed to incentivize market participants to direct additional order flow, including Added Displayed Sub-Dollar Volume and other liquidity-adding orders, to the Exchange, which the Exchange believes would promote price discovery and enhance liquidity and market quality on the Exchange to the benefit of all Members.

The Exchange notes that volume-based incentives and discounts have been widely adopted by exchanges, including the Exchange, and are reasonable, equitable and not unfairly discriminatory because they are open to all members on an equal basis and provide additional benefits or discounts that are reasonably related to the value to an exchange's market quality associated with higher levels of market activity, such as higher levels of liquidity provision and/or growth patterns, and the introduction of higher volumes of orders into the price and volume discovery process. The Exchange believes that the Step-Up Additive Rebate and Liquidity Removal Tier 1, as modified by the proposed changes to the required criteria under such tiers, are reasonable, equitable and not unfairly discriminatory for these same reasons, as such tiers would continue to provide Members with incremental incentives to achieve certain volume thresholds on the Exchange, are available to all Members on an equal basis, and, as described above, are designed to encourage Members to maintain or increase their order flow, including liquidity-adding orders, to the Exchange in order to qualify for an additive rebate for executions of Added Displayed Volume or a discounted fee for executions of Removed Volume, respectively, thereby contributing to a deeper and more liquid market to the benefit of all Members. The Exchange also believes that the proposed changes to the required criteria under such tiers reflect a reasonable and equitable allocation of fees and rebates because the Exchange believes that the additive rebate for executions of Added Displayed Volume under the Step-Up Additive Rebate and the fee for executions of Removed Volume under Liquidity Removal Tier 1 each remain commensurate with the corresponding required criteria under the applicable tier, and are reasonably related to the market quality benefits that the applicable tier is designed to achieve.

The Exchange believes that the proposed increased rebate for executions of Added Displayed Sub-Dollar Volume is reasonable, equitable, and non-discriminatory because it would further incentivize Members to submit displayed liquidity-adding orders in sub-dollar securities to the Exchange, which would deepen liquidity and promote price discovery in such securities to the benefit of all Members, and such rebate would continue to apply equally to all executions of Added Displayed Sub-Dollar Volume for all Members. The Exchange further believes that the proposed increased rebate is reasonable because at least one other exchange provides rebates for executions of liquidity-adding orders in sub-dollar securities that are lower than, equal to, and higher than the proposed rebate.[13]

For the reasons discussed above, the Exchange submits that the proposal satisfies the requirements of Sections 6(b)(4) and 6(b)(5) of the Act [14] in that it provides for the equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities and is not designed to unfairly discriminate between customers, issuers, brokers, or dealers. As described more fully below in the Exchange's statement regarding the burden on competition, the Exchange believes that its transaction pricing is subject to significant competitive forces, and that the proposed fees and rebates described herein are appropriate to address such forces.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposal will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. Instead, as discussed above, the proposal is intended to incentivize market participants to direct additional order flow, including Added Displayed Sub-Dollar Volume and other liquidity-adding orders, to the Exchange, thereby promoting price discovery and enhancing liquidity and market quality on the Exchange to the benefit of all Members. As a result, the Exchange believes the proposal would enhance its competitiveness as a market that attracts actionable orders, thereby making it a more desirable destination venue for its customers. For these reasons, the Exchange believes that the proposal furthers the Commission's goal in adopting Regulation NMS of fostering competition among orders, which promotes ''more efficient pricing of individual stocks for all types of orders, large and small.'' [15]

Intramarket Competition

As discussed above, the Exchange believes that the proposal would incentivize Members to submit additional order flow, including Added Displayed Sub-Dollar Volume and other liquidity-adding orders, to the Exchange, thereby promoting price discovery and enhancing liquidity and market quality on the Exchange to the benefit of all Members, as well as enhancing the attractiveness of the Exchange as a trading venue, which the Exchange believes, in turn, would continue to encourage market participants to direct additional order flow to the Exchange. Greater liquidity benefits all Members by providing more trading opportunities and encourages Members to send additional orders to the Exchange, thereby contributing to robust levels of liquidity, which benefits all market participants. The opportunity to qualify for the proposed new alternative criteria under the Step-Up

[12] Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005).

[13] *See* the NYSE Arca, Inc. equities trading fee schedule on its public website (available at *https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf*), which reflects a standard rebate of 0.0% of the total dollar value of the transaction for liquidity-adding transactions in securities priced below $1.00 per share and also reflects tiered rebates for such transactions ranging from 0.05% to 0.15% of the total dollar value of the transaction based on a participant achieving certain volume thresholds.

[14] 15 U.S.C. 78f(b)(4) and (5).

[15] *See supra* note 12.

Additive Rebate and Liquidity Removal Tier 1, and thus receive the corresponding additive rebate for executions of Added Displayed Volume or pay the discounted fee for Removed Volume, respectively, would continue to be available to all Members that meet the associated volume requirements in any month. As described above, the Exchange believes that the proposed new required criteria under each such tier are commensurate with the corresponding fee or rebate under such tier and are reasonably related to the enhanced liquidity and market quality that such tier is designed to promote. For the foregoing reasons, the Exchange believes the proposed changes would not impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Intermarket Competition

As noted above, the Exchange operates in a highly competitive market in which market participants can readily direct order flow to competing venues if they deem fee levels at a particular venue to be excessive or incentives to be insufficient. Members have numerous alternative venues that they may participate on and direct their order flow to, including 15 other equities exchanges and numerous alternative trading systems and other off-exchange venues. As noted above, no single registered equities exchange currently has more than approximately 15.5% of the total market share of executed volume of equities trading. Thus, in such a low-concentrated and highly competitive market, no single equities exchange possesses significant pricing power in the execution of order flow. Moreover, the Exchange believes that the ever-shifting market share among the exchanges from month to month demonstrates that market participants can shift order flow or discontinue to reduce use of certain categories of products, in response to new or different pricing structures being introduced into the market. Accordingly, competitive forces constrain the Exchange's transaction fees and rebates, including with respect to executions of Added Displayed Volume, Removed Volume, and Added Displayed Sub-Dollar Volume, and market participants can readily choose to send their orders to other exchange and off-exchange venues if they deem fee levels at those other venues to be more favorable. As described above, the proposed changes represent a competitive proposal through which the Exchange is seeking to encourage additional order flow to the Exchange through an increased rebate and volume-based tiers, which have been widely adopted by exchanges, including the Exchange. Accordingly, the Exchange believes the proposal would not burden, but rather promote, intermarket competition by enabling it to better compete with other exchanges that offer similar pricing incentives to market participants.

Additionally, the Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Specifically, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and, also, recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [16] The fact that this market is competitive has also long been recognized by the courts. In *NetCoalition* v. *SEC,* the D.C. Circuit stated as follows: ''[n]o one disputes that competition for order flow is 'fierce.' . . . As the SEC explained, '[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution'; [and] 'no exchange can afford to take its market share percentages for granted' because 'no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers'. . . .''.[17] Accordingly, the Exchange does not believe its proposed pricing changes impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act [18] and Rule 19b–4(f)(2) [19] thereunder.

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–MEMX–2022–22 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–MEMX–2022–22. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the

[16] *See supra* note 12.

[17] *NetCoalition* v. *SEC,* 615 F.3d 525, 539 (D.C. Cir. 2010) (quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74782–83 (December 9, 2008) (SR–NYSE–2006–21)).

[18] 15 U.S.C. 78s(b)(3)(A)(ii).

[19] 17 CFR 240.19b–4(f)(2).

filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–MEMX–2022–22 and should be submitted on or before September 1, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[20]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17220 Filed 8–10–22; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–95436; File No. SR–NASDAQ–2022–044]

Self-Regulatory Organizations; The Nasdaq Stock Market LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Expiration Date of the Temporary Amendments Concerning Video Conference Hearings

August 5, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 25, 2022, The Nasdaq Stock Market LLC (''Nasdaq'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') the proposed rule change as described in Items I and II, below, which Items have been prepared by the Exchange. The Exchange has designated the proposed rule change as constituting a ''non-controversial'' rule change under paragraph (f)(6) of Rule 19b–4 under the Act,[3] which renders the proposal effective upon receipt of this filing by the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the expiration date of the temporary amendments in SR–NASDAQ–2020–076 from July 31, 2022, to October 31, 2022.[4] The proposed rule change would not make any changes to the text of the Exchange rules.

The text of the proposed rule change is available on the Exchange's website at *https://listingcenter.nasdaq.com/rulebook/nasdaq/rules,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to continue to harmonize Exchange Rules 1015, 9261, 9524 and 9830 with recent changes by the Financial Industry Regulatory Authority, Inc. (''FINRA'') to its Rules 1015, 9261, 9524 and 9830 in response to the COVID–19 global health crisis and the corresponding need to restrict in-person activities. The Exchange originally filed proposed rule change SR–NASDAQ–2020–076, which allows the Exchange's Office of Hearing Officers (''OHO'') and the Exchange Review Council (''ERC'') to conduct hearings, on a temporary basis, by video conference, if warranted by the current COVID–19-related public health risks posed by an in-person hearing. In March 2022, the Exchange filed a proposed rule change, SR–NASDAQ–2022–028, to extend the expiration date of the temporary amendments in SR–NASDAQ–2020–076 from March 31, 2022, to July 31, 2022.[5]

Even though it has been more than two years since the World Health Organization declared COVID–19 a pandemic, uncertainty still remains around this disease. The continued presence of COVID–19 variants including the quickly emerging Omicron BA.4 and BA.5 subvariants, dissimilar vaccination rates throughout the United States, and the current medium to high COVID–19 community levels in many states indicate that COVID–19 remains an active and real public health concern.[6] Due to the uncertainty and the lack of a clear timeframe for a sustained and widespread abatement of COVID–19-related health concerns and corresponding restrictions,[7] the Exchange believes that there is a continued need for temporary relief beyond July 31, 2022. Accordingly, the Exchange proposes to extend the expiration date of the temporary rule amendments in SR–NASDAQ–2020–076 from July 31, 2022, to October 31, 2022.

On November 5, 2020, the Exchange filed, and subsequently extended to July 31, 2022, SR–NASDAQ–2020–076, to temporarily amend Exchange Rules 1015, 9261, 9524 and 9830 to grant OHO and the ERC authority[8] to conduct hearings in connection with appeals of Membership Application Program decisions, disciplinary actions, eligibility proceedings and temporary and permanent cease and desist orders

[20] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 17 CFR 240.19b–4(f)(6).

[4] If the Exchange seeks to provide additional temporary relief from the rule requirements identified in this proposed rule change beyond October 31, 2022, the Exchange will submit a separate rule filing to further extend the temporary extension of time. The amended Exchange rules will revert to their original form at the conclusion of the temporary relief period and any extension thereof.

[5] *See* Securities Exchange Act Release No. 94610 (April 5, 2022), 87 FR 21225 (April 11, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–NASDAQ–2022–028).

[6] For example, there has been a notable upward trend in the number of daily COVID–19 cases in the United States since April 1, 2022. *See https://covid.cdc.gov/covid-data-tracker/#trends_dailycases.* In addition, on June 9, 2022, the Biden Administration announced its operational plan for COVID–19 vaccinations for children under the age of five. *See https://www.whitehouse.gov/briefing-room/statements-releases/2022/06/09/fact-sheetbiden-administration-announces-operational-plan-for-covid-19-vaccinations-for-children-under-5/.*

[7] For instance, the Centers for Disease Control (''CDC'') recommends that people wear a mask in public indoor settings in areas with a high COVID–19 community level regardless of vaccination status or individual risk. *See https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html.* The CDC also recommends that people wear a mask in indoor areas of public transportation and transportation hubs to protect themselves and those around them and help keep travel and public transportation safer for everyone. *See https://www.cdc.gov/coronavirus/2019-ncov/travelers/masks-public-transportation.html.* Furthermore, numerous states currently have mask mandates in certain settings, such as healthcare and correctional facilities.

[8] For OHO hearings under Exchange Rules 9261 and 9830, the proposed rule change temporarily grants authority to the Chief or Deputy Chief Hearing Officer to order that a hearing be conducted by video conference. For ERC hearings under Exchange Rules 1015 and 9524, this temporary authority is granted to the ERC or relevant Subcommittee.

by video conference, if warranted by the COVID–19-related public health risks posed by an in-person hearing.[9]

As set forth in the previous filings, the Exchange also relies on COVID–19 data and the guidance issued by public health authorities to determine whether the current public health risks presented by an in-person hearing may warrant a hearing by video conference.[10] Based on that data and guidance, the Exchange does not believe the COVID–19-related health concerns necessitating this relief will meaningfully subside by July 31, 2022, and believes that there will be a continued need for this temporary relief beyond that date. Accordingly, the Exchange proposes to extend the expiration date of the temporary rule amendments originally set forth in SR–NASDAQ–2020–076 from July 31, 2022, to October 31, 2022. The extension of these temporary amendments allowing for specified OHO and ERC hearings to proceed by video conference will allow the Exchange's critical adjudicatory functions to continue to operate effectively in these extraordinary circumstances—enabling the Exchange to fulfill its statutory obligations to protect investors and maintain fair and orderly markets—while also protecting the health and safety of hearing participants.

The Exchange has filed the proposed rule change for immediate effectiveness and has requested that the SEC waive the requirement that the proposed rule change not become operative for 30 days after the date of the filing, so the Exchange can implement the proposed rule change immediately.

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[11] in general, and furthers the objectives of Section 6(b)(5) of the Act,[12] in particular, in that it is designed to promote just and equitable principles of trade, 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, by continuing to provide greater harmonization between the Exchange rules and FINRA rules of similar purpose,[13] resulting in less burdensome and more efficient regulatory compliance.

The proposed rule change, which extends the expiration date of the temporary amendments to the Exchange rules set forth in SR–NASDAQ–2020–076, will continue to aid the Exchange's efforts to timely conduct hearings in connection with its core adjudicatory functions. Given the current and frequently changing COVID–19 conditions and the uncertainty around when those conditions will see meaningful, widespread, and sustained improvement, without this relief allowing OHO and ERC hearings to proceed by video conference, the Exchange might be required to postpone some or almost all hearings indefinitely. The Exchange must be able to perform its critical adjudicatory functions to fulfill its statutory obligations to protect investors and maintain fair and orderly markets. As such, this relief is essential to the Exchange's ability to fulfill its statutory obligations and allows hearing participants to avoid the serious COVID–19-related health and safety risks associated with in-person hearings.

Among other things, this relief will allow OHO to conduct temporary cease and desist proceedings by video conference so that the Exchange can take immediate action to stop ongoing customer harm and will allow the ERC to timely provide members, disqualified individuals and other applicants an approval or denial of their applications. As set forth in detail in SR–NASDAQ–2020–076, this temporary relief allowing OHO and ERC hearings to proceed by video conference accounts for fair process considerations and will continue to provide fair process while avoiding the COVID–19-related public health risks for hearing participants. Accordingly, the proposed rule change extending this temporary relief is in the public interest and consistent with the Act's purpose.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the temporary proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. As set forth in SR–NASDAQ–2020–076, the proposed rule change is intended solely to extend temporary relief necessitated by the continued impacts of the COVID–19 outbreak and the related health and safety risks of conducting in-person activities. The Exchange believes that the proposed rule change will prevent unnecessary impediments to its operations, including its critical adjudicatory processes, and its ability to fulfill its statutory obligations to protect investors and maintain fair and orderly markets that would otherwise result if the temporary amendments were to expire on July 31, 2022.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act[14] and subparagraph (f)(6) of Rule 19b–4 thereunder.[15]

A proposed rule change filed under Rule 19b–4(f)(6)[16] normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b–4(f)(6)(iii),[17] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may

[9] *See* Securities Exchange Act Release No. 90390 (November 10, 2020), 85 FR 73302 (November 17, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–NASDAQ–2020–076); *see also* Securities Exchange Act Release No. 90774 (December 22, 2020), 85 FR 86614 (December 30, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–NASDAQ–2020–092); Securities Exchange Act Release No. 91763 (May 4, 2021), 86 FR 25055 (May 10, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–NASDAQ–2021–033); Securities Exchange Act Release No. 92911 (September 9, 2021), 86 FR 51395 (September 15, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–NASDAQ–2021–067); Securities Exchange Act Release No. 93852 (December 22, 2021), 86 FR 74201 (December 29, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–NASDAQ–2021–104); *supra* note 5.

[10] As noted in SR–NASDAQ–2020–076, the temporary proposed rule change grants discretion to OHO and the ERC to order a video conference hearing. In deciding whether to schedule a hearing by video conference, OHO and the ERC may consider a variety of other factors in addition to COVID–19 trends.

[11] 15 U.S.C. 78f(b).

[12] 15 U.S.C. 78f(b)(5).

[13] *See* Securities Exchange Act Release No. 95281 (July 14, 2022), 87 FR 43335 (July 20, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–018).

[14] 15 U.S.C. 78s(b)(3)(A)(iii).

[15] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[16] 17 CFR 240.19b–4(f)(6).

[17] 17 CFR 240.19b–4(f)(6)(iii).

become operative immediately upon filing. The Exchange has indicated that there is a continued need to extend the temporary relief because the Exchange does not believe the COVID–19 related health concerns necessitating this relief will meaningfully subside by July 31, 2022.[18] Importantly, extending the temporary relief provided in SR–NASDAQ–2020–076 immediately upon filing and without a 30-day operative delay will allow the Exchange to continue critical adjudicatory and review processes in a reasonable and fair manner and meet its critical investor protection goals, while also following best practices with respect to the health and safety of hearing participants.[19] The Commission also notes that this proposal extends without change the temporary relief previously provided by SR–NASDAQ–2020–076.[20] As proposed, the temporary changes would be in place through October 31, 2022 and the amended rules will revert back to their original state at the conclusion of the temporary relief period and, if applicable, any extension thereof.[21] For these reasons, the Commission believes that waiver of the 30-day operative delay for this proposal is consistent with the protection of investors and the public interest. Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposal operative upon filing.[22]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NASDAQ–2022–044 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NASDAQ–2022–044. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NASDAQ–2022–044 and should be submitted on or before September 1, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[23]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17223 Filed 8–10–22; 8:45 am]

BILLING CODE 8011–01–P

[18] *See supra* Item II.

[19] *See* 87 FR 43335, at 43337–38 (noting the same in granting FINRA's request to waive the 30-day operative delay so that SR–FINRA–2022–018 would become operative immediately upon filing).

[20] *See supra* note 9.

[21] *See supra* note 4. As noted above, the Exchange states that if it requires temporary relief from the rule requirements identified in this proposal beyond October 31, 2022, it may submit a separate rule filing to extend the effectiveness of the temporary relief under these rules.

[22] For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule change's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[23] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–95438; File No. SR–FINRA–2022–017]

Self-Regulatory Organizations; Financial Industry Regulatory Authority, Inc.; Order Approving a Proposed Rule Change To Amend FINRA Rule 6750 Regarding the Publication of Aggregated Transaction Information on U.S. Treasury Securities

August 5, 2022.

I. Introduction

On June 23, 2022, the Financial Industry Regulatory Authority, Inc. (''FINRA'') 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 amend FINRA Rule 6750 to provide that FINRA may publish or distribute aggregated transaction information and statistics on U.S. Treasury Securities on a more frequent basis. The proposed rule change was published for comment in the **Federal Register** on July 1, 2022.[3] The Commission received one comment letter on the proposed rule change.[4] This order approves the proposed rule change.

II. Description of the Proposal

On March 10, 2020 FINRA began posting on its website weekly, aggregate data on the trading volume of U.S. Treasury Securities [5] reported to the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 95165 (June 27, 2022), 87 FR 39573 (July 1, 2022) (''Notice'').

[4] *See* Letter from Stephen John Berger, Managing Director, Global Head of Government & Regulatory Policy, Citadel Securities, to Vanessa Countryman, Secretary, Commission (July 21, 2022) (''Citadel Letter''). Comment letters are available at: *https://www.sec.gov/comments/sr-finra-2022-017/srfinra2022017.htm.*

[5] ''U.S. Treasury Security'' means a security, other than a savings bond, issued by the U.S. Department of the Treasury (''Treasury Department'') to fund the operations of the federal government or to retire such outstanding securities. The term also includes separate principal and interest components of a U.S. Treasury Security that have been separated

Trade Reporting And Compliance Engine (TRACE).[6] FINRA is proposing to amend paragraph (b) of Supplementary Material .01 to FINRA Rule 6750 to delete the word ''weekly'' so as to permit more frequent publication of aggregated U.S. Treasury Security transaction information and statistics, such as on a daily basis.[7]

FINRA states that the more frequent aggregated U.S. Treasury Security data would continue to *not* identify individual market participants or transactions, and that FINRA would continue to *not* publish aggregated transaction information and statistics by individual U.S. Treasury Security (except for the category of on-the-run U.S. Treasury Securities because there is only one on-the-run security at a time for each subtype and maturity).[8] FINRA also states that the aggregate U.S. Treasury Security data would continue to be provided at no charge (unless FINRA first submits an appropriate rule filing establishing a fee for this data).[9] FINRA states that the proposed rule change will become effective on the date of Commission approval.[10]

III. Discussion and Commission Findings

After careful consideration, the Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities association.[11] In particular, the Commission finds that the proposed rule change is consistent with Section 15A(b)(6) of the Act,[12] which requires, among other things, that FINRA rules be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest.

The Commission received one comment letter in response to the proposal.[13] This commenter states that dissemination of more frequent aggregated transaction information will facilitate a better and more timely understanding of overall trading activity in U.S. Treasury securities and will improve the efficiency of the U.S. Treasury market.[14] The commenter further states that FINRA's proposal is another positive incremental step in enhancing transparency in the U.S. Treasury market.[15]

The Commission believes that the proposal will benefit investors and market participants by providing them with timelier insights into activity in the U.S. Treasury Securities markets while maintaining the confidentiality of individual market participants and transactions. The proposal would enable FINRA, in its discretion, to publish or distribute at no charge (unless FINRA submits a rule filing imposing a fee for such data) aggregated transaction information and statistics on TRACE-Eligible Securities[16] that are U.S. Treasury Securities on a more frequent basis than the weekly cadence provided under the current rule. FINRA represents it has received favorable feedback on the weekly aggregated trading volume data for U.S. Treasury Securities that is currently made available on its website and, in that, in consultation with the Treasury Department, FINRA now believes it would be appropriate to increase the frequency within which this aggregated data is made available.[17] The Commission believes that the more frequent availability of such aggregated transaction information on U.S. Treasury Securities would provide greater overall transparency into the market for U.S. Treasury Securities.

The Commission also believes that the proposal is reasonably designed to preserve the confidentiality of individual market participants and transactions, as aggregated transaction information and statistics on U.S. Treasury Securities would not be published or distributed by individual security (except for aggregated data that includes on-the-run U.S. Treasury Securities that may have had only one on-the-run security during the aggregated period), and would not identify individual market participants or transactions.[18] In addition, FINRA represents that the proposed rule change would not impose any additional requirements on firms, because any aggregate statistics that are published or distributed by FINRA pursuant to this rule change would be derived from trade reports already required to be submitted to TRACE.[19]

Pursuant to Section 19(b)(5) of the Act,[20] the Commission consulted with and considered the views of the Treasury Department in determining to approve the proposed rule change. The Treasury Department indicated its support for the proposal.[21] Pursuant to Section 19(b)(6) of the Act,[22] the

pursuant to the Separate Trading of Registered Interest and Principal of Securities (STRIPS) program operated by the Treasury Department. *See* FINRA Rule 6710(p).

[6] *See, e.g.,* Supplementary Material .01(b) to FINRA Rule 6750; FINRA Press Release, FINRA Launches New Data on Treasury Securities Trading Volume, available at *https://www.finra.org/media-center/newsreleases/2020/finra-launches-new-data-treasury-securities-trading-volume.*

[7] On July 10, 2017, FINRA members began reporting information on transactions in U.S. Treasury Securities to TRACE. Information reported to TRACE regarding individual transactions in U.S. Treasury Securities is used for regulatory and other official sector purposes and is not published or disseminated. Pursuant to FINRA Rule 6750 (Dissemination of Transaction Information) FINRA may, at its discretion, publish or distribute weekly aggregated transaction information and statistics on U.S. Treasury Securities at no charge (unless FINRA submits a rule filing imposing a fee for such data). FINRA states it has received favorable feedback on the weekly aggregated trading volume data for U.S. Treasury Securities that is currently made available on its website and that, in consultation with the Treasury Department, it now believes it would be appropriate to increase the frequency by which this aggregated data is made available. *See* Notice, *supra* note 3, 87 FR at 39573.

[8] *See* Notice, *supra* note 3, 87 FR at 39573–74. *See also* Rule 6750.01(b) (providing that aggregated transaction information and statistics on U.S. Treasury Securities will not be published or distributed by individual security (except for aggregated data that includes on-the-run U.S. Treasury Securities that may have had only one on-the-run security during the aggregated period) and will not identify individual market participants or transactions).

[9] *See* Notice, *supra* note 3, 87 FR at 39574; Supplementary Material .01(b) to FINRA Rule 6750.

[10] *See id.*

[11] In approving this proposal, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[12] 15 U.S.C. 78o–3(b)(6).

[13] *See* Citadel Letter, *supra* note 4 at 1.

[14] *See* Citadel Letter, *supra* note 4 at 1.

[15] *See* Citadel Letter, *supra* note 4 at 1.

[16] ''TRACE-Eligible Security'' means a debt security that is United States (''U.S.'') dollar-denominated and is: (1) issued by a U.S. or foreign private issuer, and, if a ''restricted security'' as defined in Securities Act Rule 144(a)(3), sold pursuant to Securities Act Rule 144A; (2) issued or guaranteed by an Agency as defined in FINRA Rule 6710(k) or a Government-Sponsored Enterprise as defined in FINRA Rule 6710(n); or (3) a U.S. Treasury Security as defined in FINRA Rule 6710(p). ''TRACE-Eligible Security'' does not include a debt security that is issued by a foreign sovereign or a Money Market Instrument as defined in FINRA Rule 6710(o). *See* FINRA Rule 6710(a).

[17] *See* Notice, *supra* note 3, 87 FR at 39573.

[18] *See* Notice, *supra* note 3, 87 FR at 39573–74; Supplementary Material .01(b) to FINRA Rule 6750.

[19] *See* Notice, *supra* note 3, 87 FR at 39574.

[20] *See* 15 U.S.C. 78s(b)(5) (providing that the Commission ''shall consult with and consider the views of the Secretary of the Treasury prior to approving a proposed rule filed by a registered securities association that primarily concerns conduct related to transactions in government securities, except where the Commission determines that an emergency exists requiring expeditious or summary action and publishes its reasons therefor'').

[21] *See* Email from U.S. Treasury Department staff to Justin Pica, Division of Trading and Markets, Commission (August 4, 2022). *See also* Quarterly Refunding Statement of U.S. Treasury Department Assistant Secretary for Financial Markets Josh Frost (August 3, 2022) (stating that ''Treasury supports [FINRA's] recent proposed rule change to publish the aggregated U.S. Treasury Security transaction information and statistics on a more frequent basis'') available at *https://home.treasury.gov/news/press-releases/jy0908.*

[22] 15 U.S.C. 78s(b)(6).

Commission has considered the sufficiency and appropriateness of existing laws and rules applicable to government securities brokers, government securities dealers, and their associated persons in approving the proposal.

The proposal will benefit investors and market participants by promoting greater transparency into the U.S. Treasury Securities market while also maintaining the confidentiality of individual market participants and transactions.

IV. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[23] that the proposed rule change (SR–FINRA–2022–017) is approved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[24]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17225 Filed 8–10–22; 8:45 am]

BILLING CODE 8011–01–P

[23] 15 U.S.C. 78s(b)(2).

[24] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–95437; File No. SR–NSCC–2022–011]

Self-Regulatory Organizations; National Securities Clearing Corporation; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Enhance National Securities Clearing Corporation Automated Customer Account Transfer Service

August 5, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'') [1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 26, 2022, National Securities Clearing Corporation (''NSCC'' or ''Corporation'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I, II and III below, which Items have been prepared by the clearing agency. NSCC filed the proposed rule change pursuant to Section 19(b)(3)(A) of the Act [3] and Rule 19b–4(f)(4) thereunder.[4] The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A).

[4] 17 CFR 240.19b–4(f)(4).

I. Clearing Agency's Statement of the Terms of Substance of the Proposed Rule Change

The proposed rule change consists of amendments to NSCC's Rules & Procedures (''Rules'') in order to enhance NSCC's Automated Customer Account Transfer Service (''ACATS''), as described in greater detail below.[5]

II. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the clearing agency included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The clearing agency has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

(A) Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The proposed rule change consists of modifications to NSCC's Rules to expand the ''receiver delete'' functionality in ACATS to additional products.

(i) Background

ACATS is a non-guaranteed service provided by NSCC that enables Members to effect transfers of customer accounts among themselves. ACATS complements Financial Industry Regulatory Authority (''FINRA'') Rule 11870 (''FINRA Rule 11870'') regarding customer account transfers, which requires FINRA members to use automated clearing agency customer account transfer services and to effect customer account transfers within specified time frames.[6] ACATS automates and standardizes procedures for the transfer of assets in a customer account, allowing Members to efficiently and automatically enter, review, and generate instructions to settle customer account transfers. The timing and procedures with respect to customer account transfers are intended to be consistent with the timing and processes set forth in FINRA Rule 11870.

Pursuant to NSCC Rule 50, an NSCC Member to whom a customer's account will be transferred (the ''Receiving Member'') initiates the transfer by submitting a transfer initiation request to NSCC, which contains the customer detail information that the NSCC Member who currently has the account (the ''Delivering Member'') requires to transfer the account.[7] The Delivering Member must either reject the customer account transfer request or submit detailed customer account asset data to NSCC. NSCC then provides a report detailing the customer account asset data to the Receiving Member,[8] who has one Business Day after receipt of the report to review the account and: (i) accept all assets; (ii) reject (or ''delete'') one or more assets, to the extent such a rejection is permitted by the Receiving Member's Designated Examining Authority (''DEA'') (*i.e.,* FINRA),[9] and allow the transfer of the remaining assets; (iii) request the Delivering Member to make adjustments to the customer account asset list; or (iv) reject the account, to extent such a rejection is permitted by NSCC or the Receiving Member's DEA.[10] Once a customer account has been accepted by the Receiving Member, ACATS facilitates the settlements associated with the account transfer at the appropriate asset settling location (*e.g.,* through the Continuous Net Settlement system (''CNS'') for CNS-eligible securities, DTC for securities otherwise eligible for DTC settlement services, Fund/SERV for eligible mutual fund products, the Insurance Processing Service (''IPS'') for annuities, or The Options Clearing Corporation for listed options).[11]

FINRA Rule 11870 acknowledges that some customer assets may not be transferred within the specified time frames to the extent that those assets are not readily transferable (a ''nontransferable asset''). For purposes

[5] Terms not defined herein are defined in the Rules, *available at http://dtcc.com/~/media/Files/Downloads/legal/rules/nscc_rules.pdf.*

[6] *See* FINRA Rule 11870, *available at https://www.finra.org/rules-guidance/rulebooks/finra-rules/11870.* NSCC also permits Qualified Securities Depositories (*i.e.,* The Depository Trust Company (''DTC'')) to utilize ACATS on behalf of their participants (*e.g.,* DTC member banks) on a voluntary basis. *See* Section 1 of Rule 50, *id.*

[7] *See* Section 2 of Rule 50, *supra* note 5.

[8] *See* Section 7 of Rule 50, *supra* note 5.

[9] As discussed in further detail below, NSCC Rule 50 currently limits the type of assets that a Receiving Member may delete from the customer account asset data list in ACATS to MF/I&RS Products. NSCC proposes to expand this functionality to other assets that may be deemed ''nontransferable assets'' under FINRA Rule 11870.

[10] *See* Section 8 of Rule 50, *supra* note 5. Pursuant to FINRA Rule 11870(d)(8), a Receiving Member may reject a transfer of account assets in whole if the account is not in compliance with the Receiving Member's credit policies or minimum asset requirements. *See supra* note 6.

[11] *See* Section 14 of Rule 50, *supra* note 5.

of FINRA Rule 11870, a nontransferable asset is any asset that is incapable of being transferred because it is: (i) an asset that is a proprietary product of the carrying member; [12] (ii) an asset that is a product of a third party (*e.g.,* mutual fund/money market fund) with which the receiving [13] member does not maintain the relationship or arrangement necessary to receive/carry the asset for the customer's account; (iii) an asset that may not be received due to regulatory limitations on the scope of the receiving member's business; (iv) an asset that is a bankrupt issue for which the carrying member does not possess (which shall be deemed to include possession at a securities depository for the carrying member's account) the proper denominations or quantity of shares necessary to effect delivery and no transfer agent is available to re-register the shares; (v) an asset that is an issue for which the proper denominations cannot be obtained pursuant to governmental regulation or the issuance terms of the product (*e.g.,* foreign securities, baby bonds, etc.); or (vi) limited partnership interests in retail accounts.[14]

NSCC Rule 50 currently limits the type of assets that a Receiving Member may delete from the customer account asset data list in ACATS (the ''receiver delete functionality'') to ''MF/I&RS Products,'' [15] which are comprised of Fund/SERV Eligible Fund assets [16] and/or I&RS Eligible Products.[17] As a result, certain customer assets that may also be deemed ''nontransferable assets'' under FINRA Rule 11870 are not currently included in the receiver delete functionality in ACATS and must be handled by a manual process outside of the automated ACATS system. For example, nontransferable alternative investment products that are the product of a third party, such as hedge funds, fund of funds, private equity, non-traded real estate investment trusts, and business development companies, may be submitted by the Delivering Member in the customer account asset list but cannot be removed using the receiver delete functionality in ACATS even though those products cannot be settled on an automated basis at one of the asset settling locations due to a lack of arrangements between the issuer of the product and the Receiving Member, which prevents such products from being held by at the Receiving Member. Instead, nontransferable alternative investment products included in an ACATS transfer generate a Receive and Deliver (''R&D'') ticket instructing firms to complete the transfer outside of the ACATS process. This generally involves the Delivering Member generating physical transfer paperwork and sending it to the Receiving Member, often via the Envelope Settlement Service (''ESS''),[18] to deliver the asset. Some of these assets end up getting rejected by the Receiving Member because, for example, the necessary contracts are not in place with the issuer, or the asset is otherwise ineligible to be held in the receiving account. Depending on the operational structure of the firm, the manual process to return paperwork to the Delivering Member may involve multiple touchpoints and paperwork handoffs, resulting in processing delays.

(ii) Proposed Rule Change

NSCC proposes to modify Rule 50 to allow ACATS to process deletions for any customer assets that are (i) deemed to be nontransferable assets under FINRA Rule 11870 and (ii) permitted by NSCC. Specifically, NSCC would effectuate the proposed change by revising two statements in Section 8 of Rule 50 concerning the deletion process to replace references to ''MF/I&RS Products'' with the phrase ''nontransferable assets as defined by the Receiving Member's DEA and as permitted by the Corporation.'' NSCC would also make non-substantive revisions to improve the clarity of Section 8 of Rule 50. Section 8 of Rule 50 currently provides, in part, that ''[d]uring the one (1) Business Day time period, *only* the Delivering Member will be able to add, delete or change an item, provided that the Receiving Member did not accelerate the transfer . . . other than with respect to MF/I&RS Products, which can also be deleted by the Receiving Member'' (emphasis added). NSCC proposes to delete the word ''only'' because, as noted in the current and proposed rule, the Receiving Member may also utilize the receiver delete functionality for certain products within this one Business Day time period. NSCC would also replace the phrase ''other than with respect to MF/I&RS Products, which can also be deleted by the Receiving Member'' with ''however, the Receiving Member may delete nontransferable assets as defined by the Receiving Member's DEA and as permitted by the Corporation during the one (1) Business Day time period.'' NSCC believes these proposed changes would improve the clarity and readability of the Rule.

NSCC would initially extend the receiver delete functionality to certain nontransferable alternative investment products that are the product of a third party, as discussed above. The proposed change would immediately address the need to delete alternative investment products directly within ACATS and provide necessary flexibility within NSCC's Rules to apply the receiver delete functionality to other nontransferable assets beyond MF/I&RS Products in the future.[19] NSCC would maintain a list of nontransferable assets for which the receiver delete functionality is permitted and make the list available to its Members.[20]

As discussed above, the ACATS service is intended to compliment FINRA Rule 11870 and provide timing and procedures for customer account transfers that are consistent with the timing and processes set forth in FINRA Rule 11870. NSCC Rule 50 currently limits the scope of assets that may be deleted from the customer account asset data list in ACATS to MF/I&RS Products, which prevents Members from processing the deletion of other nontransferable assets within the automated system. In the case of alternative investment products, this results in the need for manual and more lengthy processing of such assets through the R&D ticket process, which often involves generating physical transfer paperwork, the physical transmission of assets through ESS, and the ultimate rejection of nontransferable assets. Expanding the receiver delete functionality to additional nontransferable assets would reduce the cases in which transfer paperwork is mailed unnecessarily and enable the account owner to more immediately

[12] For purposes of Rule 50, a carrying member would be the Delivering Member.

[13] *See* Section 5 of Rule 50, *supra* note 5.

[14] *See supra* note 6.

[15] *See* Section 8 of Rule 50, *supra* note 5.

[16] Rule 1 defines the term ''Fund/SERV Eligible Fund'' to mean a fund or other pooled investment entity included in the list for which provision is made in Section 1.(c) of Rule 3, *supra* note 5.

[17] Rule 1 defines the term ''I&RS Eligible Product'' to mean an insurance product or a retirement or other benefit plan or program included in the list for which provision is made in Section 1.(d) of Rule 3, *supra* note 5.

[18] ESS is a non-guaranteed service of NSCC that facilitates the processing and settlement of physical security deliveries and associated charges through the use of envelope deliveries. Under this service, physical certificates may be processed for delivery at specified NSCC locations through the use of sealed envelopes accompanied by appropriate documentation (which, among other items, identifies the security, the receiving Member and the money value (if any) associated with the delivery). *See* Rule 9, *supra* note 5.

[19] NSCC would issue an Important Notice to inform Members of any new products eligible for the receiver delete functionality in ACATS.

[20] NSCC would initially maintain this list in the ACATS User Guide, which is available through the DTCC Learning Center. *See https://dtcclearning.com/products-and-services/equities-clearing/acats/acats-users.html.*

ascertain the transfer status of such assets. The proposed rule change would therefore eliminate the manual burdens and delays associated with transfers and rejections under the current R&D ticket process and would generally result in the same outcome (*i.e.,* rejection) for those assets. Moreover, the proposed rule change would allow NSCC to apply the receiver delete functionality to any future assets determined by FINRA to be nontransferable under FINRA Rule 11870. NSCC therefore believes that the proposed rule change is designed to further the goals of standardizing customer account transfer procedures, reducing operating costs, and accelerating the timing for transaction settlements in the customer account transfer process.

2. Statutory Basis

NSCC believes that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a registered clearing agency. Section 17A(b)(3)(F) of the Act [21] requires, in part, that the rules of a clearing agency be designed to promote the prompt and accurate clearance and settlement of securities transactions. The proposed rule change would provide necessary flexibility within NSCC's Rules to expand the receiver delete functionality in ACATS to nontransferable assets beyond MF/I&RS Products. The proposed change would reduce the burdens and delays associated with nontransferable assets that fall within the current manual R&D ticket process and bring greater efficiency and expediency to the account transfer process for those products as set forth above. NSCC therefore believes the proposed rule change would promote the prompt and accurate clearance and settlement of securities transactions, consistent with the requirements of the Act, in particular Section 17A(b)(3)(F) of the Act.[22]

(B) Clearing Agency's Statement on Burden on Competition

NSCC does not believe that the proposed rule change would have any impact, or impose any burden, on competition. The proposed changes would bring greater efficiency to the account transfer process by allowing ACATS participants to process deletions of additional nontransferable assets in an automated and expedited fashion. Allowing ACATS participants to process account transfers in a more efficient manner would result in client assets being transferred to the appropriate Members and DTC participants more quickly. NSCC does not believe that the proposed rule change would have any impact on competition or materially affect the rights or obligations of NSCC Members because they would apply to all ACATS participants equally and effectively result in the same outcome as under the current manual process performed today.

(C) Clearing Agency's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

NSCC has not received or solicited any written comments relating to this proposal. If any written comments are received, they will be publicly filed as an Exhibit 2 to this filing, as required by Form 19b–4 and the General Instructions thereto.

Persons submitting comments are cautioned that, according to Section IV (Solicitation of Comments) of the Exhibit 1A in the General Instructions to Form 19b–4, the Commission does not edit personal identifying information from comment submissions. Commenters should submit only information that they wish to make available publicly, including their name, email address, and any other identifying information.

All prospective commenters should follow the Commission's instructions on how to submit comments, *available at https://www.sec.gov/regulatory-actions/how-to-submit-comments*. General questions regarding the rule filing process or logistical questions regarding this filing should be directed to the Main Office of the Commission's Division of Trading and Markets at *tradingandmarkets@sec.gov* or 202–551–5777.

NSCC reserves the right not to respond to any comments received.

III. Date of Effectiveness of the Proposed Rule Change, and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) [23] of the Act and paragraph (f) [24] of Rule 19b–4 thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov*. Please include File Number SR–NSCC–2022–011 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549.

All submissions should refer to File Number SR–NSCC–2022–011. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of NSCC and on DTCC's website (*http://dtcc.com/legal/sec-rule-filings.aspx*). All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NSCC–2022–011 and should be submitted on or before September 1, 2022.

[21] 15 U.S.C. 78q–1(b)(3)(F).

[22] *Id.*

[23] 15 U.S.C. 78s(b)(3)(A).

[24] 17 CFR 240.19b–4(f).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[25]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17224 Filed 8–10–22; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 34665; File No. 812–15320]

MSD Investment Corp., et al.

August 5, 2022.

AGENCY: Securities and Exchange Commission (''Commission'' or ''SEC'').

ACTION: Notice.

Notice of application for an order (''Order'') under sections 17(d) and 57(i) of the Investment Company Act of 1940 (the ''Act'') and rule 17d–1 under the Act to permit certain joint transactions otherwise prohibited by sections 17(d) and 57(a)(4) of the Act and rule 17d–1 under the Act.

SUMMARY OF APPLICATION: Applicants request an order to amend a previous order granted by the Commission that permits certain business development companies (''BDCs'') and closed-end management investment companies to co-invest in portfolio companies with each other and with certain affiliated investment entities.

APPLICANTS: MSD Investment Corp., MSD Partners, L.P., MSD Credit Opportunity Master Fund, L.P., MSD Credit Opportunity Master Fund II, L.P., MSD Credit Opportunity Fund, L.P., MSD Credit Opportunity Fund (Cayman), L.P., MSD Credit Opportunity Fund, Ltd., MSD Debt REIT Holdings, L.P., MSDC EIV, LLC, MSD EIV Private, LLC, MSD RCOF TRS, LLC, MSD RCOF TRS (Cayman) LTD., MSD Real Estate Credit Opportunity Fund L.P., MSD Real Estate Credit Opportunity Fund-C L.P., RCOF–C Intermediate (Cayman), L.P., RCOF–C Intermediate, L.P., MSD Special Investments Fund, L.P., MSD SIF Holdings, L.P., MSD Special Investments Fund (Cayman), L.P., MSD SIF (Cayman), L.P., MSD Alpine Credit Opportunity Fund, LP, MSD SBAFLA Fund, L.P., MSD UK Holdings Limited, MSD UK Holdings Ltd, MSD UK Aggregator Fund, LLC, MSD PCOF SMA 1, LLC, MSD PCOF SMA 2, LLC, MSD RCOF SMA 1, LLC, MSD RCOF SMA 2, LLC, MSD Private Credit Opportunity Master (ECI) Fund 2, L.P., MSD Private Credit Opportunity Master Fund 2, L.P., MSD Private Credit Opportunity Fund 2, L.P., MSD Private Credit Opportunity Fund (Cayman) 2, L.P., MSD Private Credit Opportunity Fund (Cayman) II, L.P., Intermediate Fund PCOF 2, LLC, MSD PCOF Fund 2, Ltd, Onshore Intermediate Fund PCOF 2, LLC, MSD Onshore PCOF Fund 2, Ltd, MSD Private Credit Opportunity Master (ECI) Fund, L.P., MSD Private Credit Opportunity Master (ECI) Fund II, L.P., MSD Private Credit Opportunity Master Fund, L.P., MSD Private Credit Opportunity Fund, L.P., MSD Private Credit Opportunity Fund (Cayman), L.P., MSD Private Credit Opportunity Fund II, L.P., MSD BDC SPV I, LLC, MSD Real Estate Credit Opportunity Fund II–C, L.P., MSD Real Estate Credit Opportunity Fund II, L.P., MSD Credit REIT Holdings II, L.P., MSD Special Investments Fund (Cayman) II, L.P., and MSD Special Investments Fund II, L.P.

FILING DATES: The application was filed on April 14, 2022, and amended on July 8, 2022.

HEARING OR NOTIFICATION OF HEARING: An order granting the requested relief will be issued unless the Commission orders a hearing. Interested persons may request a hearing on any application by emailing the SEC's Secretary at *Secretarys-Office@sec.gov* and serving the Applicants with a copy of the request by email, if an email address is listed for the relevant Applicant below, or personally or by mail, if a physical address is listed for the relevant Applicant below. Hearing requests should be received by the Commission by 5:30 p.m. on, August 30, 2022, and should be accompanied by proof of service on applicants, in the form of an affidavit or, for lawyers, a certificate of service. Pursuant to rule 0–5 under the Act, hearing requests should state the nature of the writer's interest, any facts bearing upon the desirability of a hearing on the matter, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by emailing the Commission's Secretary at *Secretarys-Office@sec.gov.*

ADDRESSES: The Commission: *Secretarys-Office@sec.gov.* Applicants: Robert Simonds, MSD Partners, L.P., at *bsimonds@msdpartners.com,* and Steven B. Boehm, Esq., Anne G. Oberndorf, Esq., and Payam Siadatpour, Esq., Eversheds Sutherland (US) LLP, at *anneoberndorf@eversheds-sutherland.us.*

FOR FURTHER INFORMATION CONTACT: Kieran G. Brown, Senior Counsel, or Terri Jordan, Branch Chief, at (202) 551–6825 (Division of Investment Management, Chief Counsel's Office).

SUPPLEMENTARY INFORMATION: For Applicants' representations, legal analysis, and conditions, please refer to Applicants' first amended and restated application, dated July 8, 2022, which may be obtained via the Commission's website by searching for the file number at the top of this document, or for an Applicant using the Company name search field, on the SEC's EDGAR system. The SEC's EDGAR system may be searched at, *http://www.sec.gov/edgar/searchedgar/legacy/companysearch.html.* You may also call the SEC's Public Reference Room at (202) 551–8090.

For the Commission, by the Division of Investment Management, under delegated authority.

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17217 Filed 8–10–22; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–95434; File No. SR–NASDAQ–2022–015]

Self-Regulatory Organizations; The Nasdaq Stock Market LLC; Notice of Designation of Longer Period for Commission Action on Proceedings To Determine Whether To Approve or Disapprove a Proposed Rule Change, as Modified by Amendment No. 1, To Exempt Non-Convertible Bonds Listed Under Rule 5702 From Certain Corporate Governance Requirements

August 5, 2022.

On February 4, 2022, The Nasdaq Stock Market LLC (''Nasdaq'' or ''Exchange'') 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 exempt non-convertible bonds listed under Rule 5702 from certain corporate governance requirements. The proposed rule change was published for comment in the **Federal Register** on February 23, 2022.[3] On March 18, 2022, pursuant to Section 19(b)(2) of the Act,[4] the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to disapprove the

[25] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 94265 (February 16, 2022), 87 FR 10265 (''Notice).

[4] 15 U.S.C. 78s(b)(2).

proposed rule change.[5] On May 18, 2022, the Commission instituted proceedings under Section 19(b)(2)(B) of the Act[6] to determine whether to approve or disapprove the proposed rule change.[7] On June 13, 2022, Exchange filed Amendment No. 1 to the proposed rule change, which supersedes the original filing in its entirety.[8] The Commission has received no comment letters on the proposed rule change.

Section 19(b)(2) of the Act[9] provides that, after initiating disapproval proceedings, the Commission shall issue an order approving or disapproving the proposed rule change not later than 180 days after the date of publication of notice of filing of the proposed rule change. The Commission may extend the period for issuing an order approving or disapproving the proposed rule change, however, by not more than 60 days if the Commission determines that a longer period is appropriate and publishes the reasons for such determination.[10] The proposed rule change was published for notice and comment in the **Federal Register** on February 23, 2022.[11] August 22, 2022, is 180 days from that date, and October 21, 2022, is 240 days from that date.

The Commission finds that it is appropriate to designate a longer period within which to issue an order approving or disapproving the proposed rule change so that it has sufficient time to consider the proposed rule change, as modified by Amendment No. 1. Accordingly, the Commission, pursuant to Section 19(b)(2) of the Act,[12] designates October 21, 2022, as the date by which the Commission shall either approve or disapprove the proposed rule change, as modified by Amendment No. 1 (File No. SR–NASDAQ–2022–015).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[13]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17221 Filed 8–10–22; 8:45 am]

BILLING CODE 8011–01–P

[5] *See* Securities Exchange Act Release No. 94471, 87 FR 16778 (March 24, 2022). The Commission designated May 24, 2022, as the date by which the Commission shall approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change.

[6] 15 U.S.C. 78s(b)(2)(B).

[7] *See* Securities Exchange Act Release No. 94941, 87 FR 31594 (May 24, 2022).

[8] In Amendment 1, the Exchange: (i) clarified the purpose and rationale of the proposed rule change; and (ii) made technical changes to improve the structure, clarity and readability of the proposed rule. The full text of Amendment No. 1 is available on the Commission's website at: *https://www.sec.gov/comments/sr-nasdaq-2022-015/srnasdaq2022015-20131121-301311.pdf.*

[9] 15 U.S.C. 78s(b)(2).

[10] *Id.*

[11] *See* Notice, *supra* note 3.

[12] 15 U.S.C. 78s(b)(2).

[13] 17 CFR 200.30–3(a)(57).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–95442; File No. SR–NYSE–2022–36]

Self-Regulatory Organizations; New York Stock Exchange LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to the NYSE Equities Proprietary Market Data Fees To Adopt a Professional User Fee Cap and an Enterprise Fee for Broker-Dealer Subscribers of NYSE OpenBook

August 5, 2022.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (''Act'')[2] and Rule 19b–4 thereunder,[3] notice is hereby given that, on August 1, 2022, New York Stock Exchange LLC (''NYSE'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to the NYSE Equities Proprietary Market Data Fees (''Fee Schedule'') to establish a Professional User Fee Cap and an Enterprise Fee for Broker-Dealer subscribers of NYSE OpenBook. The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes changes to the Fee Schedule to establish a Professional User Fee Cap and an Enterprise Fee for Broker-Dealer subscribers of NYSE OpenBook. The Exchange proposes to make these fee changes operative on August 1, 2022.

The Exchange currently offers a Non-Professional User Fee Cap for broker-dealers that are subscribers of NYSE OpenBook at $25,000 per month.[4] To illustrate the application of the Non-Professional User Fee Cap, absent the fee cap, a broker-dealer with 2,500 external non-professional users who receives NYSE OpenBook would pay $37,500 per month in professional user fees (2,500 users at $15 per month).[5] This broker-dealer's fees, however, are currently capped at $25,000 per month.

With this proposed rule change, the Exchange proposes to establish a Professional User Fee Cap for broker-dealers that are subscribers of NYSE OpenBook at $35,000 per month for internal and external professional users to whom the broker-dealer may redistribute NYSE OpenBook data. To illustrate the application of the proposed Professional User Fee Cap, a broker-dealer with 5,000 professional users who receives NYSE OpenBook would pay $300,000 per month in professional user fees (5,000 users at $60 per month per user).[6] However, the operation of the proposed cap would cause this broker-dealer's professional user fees to drop to $35,000 per month. Subscribers with more than 583 professional users would significantly

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] *See* Securities Exchange Act Release No. 59544 (March 9, 2009), 74 FR 11162 (March 16, 2009) (SR–NYSE–2008–131) (Order Approving Proposed Rule Change To Introduce a NYSE OpenBook Nonprofessional Subscriber Fee). The Non-Professional User Fee Cap applies to external users of a broker-dealer subscriber.

[5] The non-professional user fee for broker-dealer subscribers of NYSE OpenBook is $15 per month per user. *See* Fee Schedule, available here: *https://www.nyse.com/publicdocs/nyse/data/NYSE_Market_Data_Fee_Schedule.pdf.*

[6] The professional user fees for broker-dealer subscribers of NYSE OpenBook is $60 per month per user. *See* Fee Schedule, available here: *https://www.nyse.com/publicdocs/nyse/data/NYSE_Market_Data_Fee_Schedule.pdf.*

benefit as they would pay less than they would absent the proposed fee cap.

Subscribers whose fees are capped are required to count and report to the Exchange the total number of professional and non-professional users that are permissioned to receive the data.

Additionally, as part of the Exchange's efforts to ease administrative burdens on its customers, the Exchange proposes to adopt an Enterprise Fee for broker-dealers that are subscribers of NYSE OpenBook at $60,000 per month. The proposed fee is the sum of the Non-Professional User Fee Cap of $25,000 per month and the proposed Professional User Fee Cap of $35,000 per month. To illustrate the application of the proposed Enterprise Fee, a broker-dealer with a total of 5,000 internal professional users and 2,500 external non-professional users, would currently be capped at $60,000 per month ($25,000 per month under the Non-Professional User Fee Cap plus $35,000 per month under the proposed Professional User Fee Cap). This broker-dealer would also not be required to count and report to the Exchange the number of professional and non-professional users.

Applicability of Proposed Rule Change

The purpose of the Professional User Fee Cap for broker-dealer subscribers who redistribute NYSE OpenBook to professional users is to offer an additional subscription method that would limit the amount of fees paid by such subscriber. The Exchange notes that fee caps have long been accepted as an economically efficient form of volume discount for the heaviest users of market data and would allow for a broad dissemination of the Exchange's market data product. The concept of adopting a fee cap applicable to broker-dealer subscribers is not novel.[7] The Exchange currently has a Non-Professional Fee Cap applicable to broker-dealers that subscribe to NYSE OpenBook.[8]

The purpose of the Enterprise Fee is to offer customers an additional subscription method without imposing any new or higher fees, and to lower the administrative burden on broker-dealer subscribers by not requiring the broker-dealer to count and report to the Exchange the number of professional users and non-professional users separately. The Exchange believes eliminating the distinction between professional users and non-professional users in a brokerage relationship will lessen current distinctions among broker-dealers. As proposed, all broker-dealers that choose to utilize the enterprise license will be treated the same in that each broker-dealer that chooses an enterprise license would pay the same amount of the fee without having to count and report the number of professional users and non-professional users separately. With the proposed fee change, a broker-dealer subscriber could choose an enterprise license and would continue to pay the same amount as it does today and would be able to provide NYSE OpenBook to internal and external professional and non-professional users at no additional cost. The proposed change will not increase any fee or charge to current subscribers.

The proposed Enterprise Fee for NYSE OpenBook will result in a fee reduction for broker-dealer subscribers with sufficiently large numbers of professional and non-professional users, as described in the example above. Broker-dealers that purchase NYSE OpenBook typically have thousands of users. If a broker-dealer subscriber has a smaller number of professional and/or non-professional users of NYSE OpenBook, then it may continue to use the per user fee structure and the fees it pays will not change. By providing an enterprise license for broker-dealers with a large number of professional and non-professional users, the Exchange believes that more broker-dealers may choose to offer NYSE OpenBook, thereby expanding the distribution of this market data for the benefit of investors. The Exchange also believes that offering an enterprise license expands the range of options for offering NYSE OpenBook and would allow broker-dealers greater choice in selecting the most appropriate level of data and fees for the professional and non-professional users they are servicing. As noted above, the concept of adopting an enterprise license fee is not novel.[9] In addition, the Exchange currently has an enterprise license applicable to subscribers to NYSE BBO and NYSE Trades market data feeds.[10]

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6 of the Act,[11] in general, and Sections 6(b)(4) and 6(b)(5) of the Act,[12] in particular, in that it provides an equitable allocation of reasonable fees among users and recipients of the data and is not designed to permit unfair discrimination among customers, issuers, and brokers.

In adopting Regulation NMS, the Commission granted self-regulatory organizations (''SROs'') and broker-dealers increased authority and flexibility to offer new and unique market data to the public. The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Specifically, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues, and also recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [13]

With respect to market data, the decision of the United States Court of Appeals for the District of Columbia Circuit in *NetCoalition* v. *SEC* upheld the Commission's reliance on the existence of competitive market mechanisms to evaluate the reasonableness and fairness of fees for proprietary market data:

> In fact, the legislative history indicates that the Congress intended that the market system ''evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed'' and that the SEC wield its regulatory power ''in those situations where competition may not be sufficient,'' such as in the creation of a ''consolidated transactional reporting system.'' [14]

The court agreed with the Commission's conclusion that ''Congress intended that 'competitive forces should dictate the services and practices that constitute the U.S. national market system for trading equity securities.' '' [15]

More recently, the Commission confirmed that it applies a ''market-

[7] *See e.g.,* Section 123(c) Enterprise License Fees for Nasdaq Depth-of-Book Data at *https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/Nasdaq%20Equity%207.*

[8] *See* NYSE Equities Proprietary Market Data Fees at *https://www.nyse.com/publicdocs/nyse/data/NYSE_Market_Data_Fee_Schedule.pdf.*

[9] *See e.g.,* Section 123(c) Enterprise License Fees for Nasdaq Depth-of-Book Data at *https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/Nasdaq%20Equity%207.*

[10] *See* NYSE Equities Proprietary Market Data Fees at *https://www.nyse.com/publicdocs/nyse/data/NYSE_Market_Data_Fee_Schedule.pdf.*

[11] 15 U.S.C. 78f(b).

[12] 15 U.S.C. 78f(b)(4), (5).

[13] *See* Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37495, 37499 (June 29, 2005) (S7–10–04) (Final Rule).

[14] *NetCoalition* v. *SEC,* 615 F.3d 525, 535 (D.C. Cir. 2010) (quoting H.R. Rep. No. 94–229 at 92 (1975), *as reprinted in* 1975 U.S.C.C.A.N. 323).

[15] *Id.* at 535.

based'' test in its assessment of market data fees, and that under that test:

> the Commission considers whether the exchange was subject to significant competitive forces in setting the terms of its proposal for [market data], including the level of any fees. If an exchange meets this burden, the Commission will find that its fee rule is consistent with the Act unless there is a substantial countervailing basis to find that the terms of the rule violate the Act or the rules thereunder.[16]

More specifically, the proposed rule change will expand competition by providing customers an additional subscription method (without imposing any new or higher fees) that would cap their fees and reduce the administrative burden of counting and reporting to the Exchange the number of professional and non-professional users. With this proposed rule change, customers will have the ability to choose which subscription options suits its needs best. For the broker-dealers who have a large user base of professionals and non-professionals, the ability to subscribe to an enterprise license would eliminate the burden of counting and reporting users, as well as the burden to validate the non-professional user status to ensure accurate non-professional user count. The enterprise license would also cap the broker-dealer's device fees for NYSE OpenBook at the enterprise rate. If a current broker-dealer subscriber has a smaller number of professional and/or non-professional users of NYSE OpenBook, then it may continue to use the per user fee structure and the fees it pays will not change or increase. As proposed, all broker-dealers that choose to utilize the proposed enterprise license would pay the same amount of the fee without having to count and report the number of professional users and non-professional users separately and will not need to validate non-professional user status.

The Exchange notes that NYSE OpenBook is entirely optional. The Exchange is not required to make NYSE OpenBook available or to offer any specific pricing alternatives to any customers, nor is any firm required to purchase NYSE OpenBook. Unlike some other data products (*e.g.,* the consolidated quotation and last-sale information feeds) that firms are required to purchase in order to fulfil regulatory obligations,[17] a customer's decision whether to purchase any of the Exchange's proprietary market data feeds is entirely discretionary. Firms that do purchase NYSE OpenBook do so for the primary goals of using the data feed to increase profits, reduce expenses, and in some instances compete directly with the Exchange (including for order flow); those firms are able to determine for themselves whether NYSE OpenBook or any other similar products are attractively priced or not.

Firms that do not wish to purchase NYSE OpenBook have a variety of alternative market data products from which to choose. For example, the Nasdaq Stock Market (''Nasdaq'') provides an enterprise license for the dissemination of Nasdaq TotalView, which competes with NYSE OpenBook. More specifically, Nasdaq provides broker-dealer subscribers an enterprise license that permits internal and external distribution to both professional and non-professional users for a monthly fee of $500,000.[18] Alternatively, if NYSE OpenBook does not provide sufficient value to firms as offered based on the uses those firms have or planned to make of it, such firms may simply choose to conduct their business operations in ways that do not use NYSE OpenBook or use them at different levels or in different configurations.

In setting the proposed fees, the Exchange considered the competitiveness of the market for proprietary data and all of the implications of that competition. The Exchange believes that it has considered all relevant factors and has not considered irrelevant factors in order to establish reasonable fees. The existence of numerous alternatives to the Exchange's offering, including proprietary data from other sources, ensures that the Exchange cannot set unreasonable fees when subscribers can elect these alternatives or choose not to purchase a specific proprietary data product if the attendant fees are not justified by the returns that any particular data recipient would achieve through the purchase.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. As noted above, the proposed rule change will expand competition by providing customers with an additional subscription method that would reduce their administrative burden and cap their fees. Customers that choose to purchase the proposed enterprise license will benefit from the ability to grow their use base without paying additional incremental fees, reduced administrative burden by eliminating the need to validate non-professional user status, and eliminating the need to count and report the number of professional and/or non-professional users. Customers with a small number of professional and non-professional users can continue to use the per user fee structure and the fees it pays will not change.

Intramarket Competition. The Exchange believes that the proposed rule change does not put any market participant at a relative disadvantage compared to other market participants. As noted above, the proposed fee schedule would apply to all subscribers of NYSE OpenBook, and customers may not only choose whether to subscribe to the feed at all but may tailor their subscription to include only the products and uses that they deem suitable for their business needs. The Exchange also believes that the proposed rule change neither favors nor penalizes one or more categories of market participants in a manner that would impose an undue market on competition.

Intermarket Competition. The Exchange believes that the proposed rule change does not impose a burden on competition on other exchanges that is not necessary or appropriate; indeed, the Exchange believes the proposal would have the effect of increasing competition by offering customers additional subscription choices. In setting fees at issue here, the Exchange is constrained by the fact that, if its pricing is unattractive to customers, customers will have their pick of an increasing number of alternative venues to use instead of the Exchange. Given this competition, no one exchange's market data fees can impose an unnecessary burden on competition, and the Exchange's proposed fees do not do so here.

[16] *See* Securities Exchange Act Release No. 34–90217 (October 16, 2020), 85 FR 67392 (October 22, 2020) (SR–NYSENAT–2020–05) (Order Approving a Proposed Rule Change to Establish Fees for the NYSE National Integrated Feed) (internal quotation marks omitted), quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74781 (December 9, 2008) (NYSE ArcaBook Approval Order).

[17] The Exchange notes that broker-dealers are not required to purchase proprietary market data to comply with their best execution obligations. *See In the Matter of the Application of Securities Industry and Financial Markets Association for Review of Actions Taken by Self-Regulatory Organizations,* Release Nos. 34–72182; AP–3–15350; AP–3–15351 (May 16, 2014). Similarly, there is no requirement in Regulation NMS or any other rule that proprietary data be utilized for order routing decisions, and some broker-dealers and ATSs have chosen not to do so.

[18] *See* Nasdaq TotalView, Enterprise License Option, available at *http://www.nasdaqtrader.com/Trader.aspx?id=DPUSData.*

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change is effective upon filing pursuant to Section 19(b)(3)(A) [19] of the Act and subparagraph (f)(2) of Rule 19b–4 [20] thereunder, because it establishes a due, fee, or other charge imposed by the Exchange.

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings under Section 19(b)(2)(B) [21] of the Act to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSE–2022–36 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSE–2022–36. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSE–2022–36 and should be submitted on or before September 1, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[22]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17226 Filed 8–10–22; 8:45 am]

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[19] 15 U.S.C. 78s(b)(3)(A).

[20] 17 CFR 240.19b–4(f)(2).

[21] 15 U.S.C. 78s(b)(2)(B).

[22] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–95435; File No. SR–Phlx–2022–32]

Self-Regulatory Organizations; Nasdaq PHLX LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Expiration Date of the Temporary Amendments Concerning Video Conference Hearings

August 5, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 26, 2022, Nasdaq PHLX LLC (''Phlx'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Exchange has designated the proposed rule change as constituting a ''non-controversial'' rule change under paragraph (f)(6) of Rule 19b–4 under the Act,[3] which renders the proposal effective upon receipt of this filing by the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the expiration date of the temporary amendments in SR–Phlx–2020–53 from July 31, 2022, to October 31, 2022.[4] The proposed rule change would not make any changes to the text of the Exchange rules.

The text of the proposed rule change is available on the Exchange's website at *https://listingcenter.nasdaq.com/rulebook/phlx/rules,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to continue to harmonize Exchange Rule General 3, Section 16 with recent changes by the Financial Industry Regulatory Authority, Inc. (''FINRA'') to its Rule 1015 in response to the COVID–19 global health crisis and the corresponding need to restrict in-person

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 17 CFR 240.19b–4(f)(6).

[4] If the Exchange seeks to provide additional temporary relief from the rule requirements identified in this proposed rule change beyond October 31, 2022, the Exchange will submit a separate rule filing to further extend the temporary extension of time. The amended Exchange rules will revert to their original form at the conclusion of the temporary relief period and any extension thereof.

activities.[5] The Exchange originally filed proposed rule change SR–Phlx–2020–53, which allows the Exchange Review Council (''ERC'') to conduct hearings in connection with appeals of Membership Application Program decisions, on a temporary basis, by video conference, if warranted by the current COVID–19-related public health risks posed by an in-person hearing. In March 2022, the Exchange filed a proposed rule change, SR–Phlx–2022–15, to extend the expiration date of the temporary amendments in SR–Phlx–2020–53 from March 31, 2022, to July 31, 2022.[6] Even though it has been more than two years since the World Health Organization declared COVID–19 a pandemic, uncertainty still remains around this disease. The continued presence of COVID–19 variants including the quickly emerging Omicron BA.4 and BA.5 subvariants, dissimilar vaccination rates throughout the United States, and the current medium to high COVID–19 community levels in many states indicate that COVID–19 remains an active and real public health concern.[7] Due to the uncertainty and the lack of a clear timeframe for a sustained and widespread abatement of COVID–19-related health concerns and corresponding restrictions,[8] the Exchange believes that there is a continued need for temporary relief beyond July 31, 2022. Accordingly, the Exchange proposes to extend the expiration date of the temporary rule amendments in SR–Phlx–2020–53 from July 31, 2022, to October 31, 2022.

As set forth in SR–Phlx–2020–53, the Exchange also relies on COVID–19 data and criteria to determine whether the current public health risks presented by an in-person hearing may warrant a hearing by video conference. Based on that data and criteria, the Exchange does not believe the COVID–19-related health concerns necessitating this relief will meaningfully subside by July 31, 2022, and believes that there will be a continued need for this temporary relief beyond that date. Accordingly, the Exchange proposes to extend the expiration date of the temporary rule amendments originally set forth in SR–Phlx–2020–53 from July 31, 2022, to October 31, 2022. The extension of the temporary amendments allowing for specified ERC hearings to proceed by video conference will allow the Exchange's critical adjudicatory functions to continue to operate effectively in these extraordinary circumstances—enabling the Exchange to fulfill its statutory obligations to protect investors and maintain fair and orderly markets—while also protecting the health and safety of hearing participants.

The Exchange has filed the proposed rule change for immediate effectiveness and has requested that the SEC waive the requirement that the proposed rule change not become operative for 30 days after the date of the filing, so the Exchange can implement the proposed rule change immediately.

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[9] in general, and furthers the objectives of Section 6(b)(5) of the Act,[10] in particular, in that it is designed to promote just and equitable principles of trade, 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, by providing greater harmonization between the Exchange rules and FINRA rules of similar purpose,[11] resulting in less burdensome and more efficient regulatory compliance.

The proposed rule change, which extends the expiration date of the temporary amendments to the Exchange rules set forth in SR–Phlx–2020–53, will continue to aid the Exchange's efforts to timely conduct hearings in connection with its core adjudicatory functions. Given the current and frequently changing COVID–19 conditions and the uncertainty around when those conditions will see meaningful, widespread and sustained improvement, without this relief allowing ERC hearings to proceed by video conference, the Exchange might be required to postpone some or almost all hearings indefinitely. The Exchange must be able to perform its critical adjudicatory functions to fulfill its statutory obligations to protect investors and maintain fair and orderly markets. As such, this relief is essential to the Exchange's ability to fulfill its statutory obligations and allows hearing participants to avoid the serious COVID–19-related health and safety risks associated with in-person hearings.

Among other things, this relief will allow the ERC to timely provide members, disqualified individuals and other applicants an approval or denial of their applications. As set forth in detail in SR–Phlx–2020–53, this temporary relief allowing ERC hearings to proceed by video conference accounts for fair process considerations and will continue to provide fair process while avoiding the COVID–19-related public health risks for hearing participants. Accordingly, the proposed rule change extending this temporary relief is in the public interest and consistent with the Act's purpose.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the temporary proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. As set forth in SR–Phlx–2020–53, the proposed rule change is intended solely

[5] *See* Securities Exchange Act Release No. 95281 (July 14, 2022), 87 FR 43335 (July 20, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2022–018) (''FINRA Filing''). The Exchange notes that the FINRA Filing also proposed to temporarily amend FINRA Rules 9261, 9524, and 9830, which govern hearings in connection with appeals of disciplinary actions, eligibility proceedings, and temporary and permanent cease and desist orders. The Exchange's Rules 9261, 9524, and 9830 incorporate by reference The Nasdaq Stock Market LLC rules, which are the subject of a separate filing. *See* SR–NASDAQ–2022–044. Therefore, the Exchange is not proposing to adopt that aspect of the FINRA Filing.

[6] *See* Securities Exchange Act Release No. 94611 (April 5, 2022), 87 FR 21230 (April 11, 2022) (Notice of Filing and Immediate Effectiveness of File No. SR–Phlx–2022–15); *see also* Securities Exchange Act Release No. 93853 (December 22, 2021), 86 FR 74164 (December 29, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–Phlx–2021–75); Securities Exchange Act Release No. 92906 (September 9, 2021), 86 FR 51404 (September 15, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–Phlx–2021–49); Securities Exchange Act Release No. 91766 (May 4, 2021), 86 FR 25014 (May 10, 2021) (Notice of Filing and Immediate Effectiveness of File No. SR–Phlx–2021–27); Securities Exchange Act Release No. 90758 (December 21, 2020), 85 FR 85782 (December 29, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–Phlx–2020–053).

[7] For example, there has been a notable upward trend in the number of daily COVID–19 cases in the United States since April 1, 2022. *See https://covid.cdc.gov/covid-data-tracker/#trends_dailycases.* In addition, on June 9, 2022, the Biden Administration announced its operational plan for COVID–19 vaccinations for children under the age of five. *See https://www.whitehouse.gov/briefing-room/statements-releases/2022/06/09/fact-sheetbiden-administration-announces-operational-plan-for-covid-19-vaccinations-for-children-under-5/.*

[8] For instance, the Centers for Disease Control (''CDC'') recommends that people wear a mask in public indoor settings in areas with a high COVID–19 community level regardless of vaccination status or individual risk. *See https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html.* The CDC also recommends that people wear a mask in indoor areas of public transportation and transportation hubs to protect themselves and those around them and help keep travel and public transportation safer for everyone. *See https://www.cdc.gov/coronavirus/2019-ncov/travelers/masks-public-transportation.html.* Furthermore, numerous states currently have mask mandates in certain settings, such as healthcare and correctional facilities.

[9] 15 U.S.C. 78f(b).

[10] 15 U.S.C. 78f(b)(5).

[11] *See supra* note 5.

to extend temporary relief necessitated by the continued impacts of the COVID–19 outbreak and the related health and safety risks of conducting in-person activities. The Exchange believes that the proposed rule change will prevent unnecessary impediments to its operations, including its critical adjudicatory processes, and its ability to fulfill its statutory obligations to protect investors and maintain fair and orderly markets that would otherwise result if the temporary amendments were to expire on July 31, 2022.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act [12] and subparagraph (f)(6) of Rule 19b–4 thereunder.[13]

A proposed rule change filed under Rule 19b–4(f)(6) [14] normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b–4(f)(6)(iii),[15] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative immediately upon filing. The Exchange has indicated that there is a continued need to extend the temporary relief because the Exchange does not believe the COVID–19 related health concerns necessitating this relief will meaningfully subside by July 31, 2022.[16] Importantly, extending the temporary relief provided in SR–Phlx–2020–53 immediately upon filing and without a 30-day operative delay will allow the Exchange to continue critical adjudicatory and review processes in a reasonable and fair manner and meet its critical investor protection goals, while also following best practices with respect to the health and safety of hearing participants.[17] The Commission also notes that this proposal extends without change the temporary relief previously provided by SR–Phlx–2020–53.[18] As proposed, the temporary changes would be in place through October 31, 2022 and the amended rules will revert back to their original state at the conclusion of the temporary relief period and, if applicable, any extension thereof.[19] For these reasons, the Commission believes that waiver of the 30-day operative delay for this proposal is consistent with the protection of investors and the public interest. Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposal operative upon filing.[20]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–Phlx–2022–32 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–Phlx–2022–32. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–Phlx–2022–32 and should be submitted on or before September 1, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[21]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2022–17222 Filed 8–10–22; 8:45 am]

BILLING CODE 8011–01–P

[12] 15 U.S.C. 78s(b)(3)(A)(iii).

[13] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[14] 17 CFR 240.19b–4(f)(6).

[15] 17 CFR 240.19b–4(f)(6)(iii).

[16] *See supra* Item II.

[17] *See* FINRA Filing, at 43337–38 (noting the same in granting FINRA's request to waive the 30-day operative delay so that SR–FINRA–2022–018 would become operative immediately upon filing).

[18] *See supra* note 6.

[19] *See supra* note 4. As noted above, the Exchange states that if it requires temporary relief from the rule requirements identified in this proposal beyond October 31, 2022, it may submit a separate rule filing to extend the effectiveness of the temporary relief under these rules.

[20] For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule change's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[21] 17 CFR 200.30–3(a)(12).

SMALL BUSINESS ADMINISTRATION

Meeting of the Interagency Task Force on Veterans Small Business Development

AGENCY: Small Business Administration (SBA).

ACTION: Notice of open Federal Advisory Committee meeting.

SUMMARY: The SBA is issuing this notice to announce the date, time, and agenda for the next meeting of the Interagency Task Force on Veterans Small Business Development (IATF).

DATES: Wednesday, September 7, 2022, from 1:00 p.m. to 3:30 p.m. EST.

ADDRESSES: Due to the coronavirus pandemic, the meeting will be held via Microsoft Teams.

FOR FURTHER INFORMATION CONTACT: The meeting is open to the public; however advance notice of attendance is strongly encouraged. To RSVP and confirm attendance, the public should email *veteransbusiness@sba.gov* with subject line—''RSVP for September 7, 2022, IATF Public Meeting.'' To submit a written comment, individuals should email *veteransbusiness@sba.gov* with subject line—''Response for September 7, 2022, IATF Public Meeting'' no later than August 29, 2022, or contact Timothy Green, Deputy Associate Administrator, Office of Veterans Business Development (OVBD) at (202) 205–6773. Comments received in advanced will be addressed as time allows during the public comment period. All other submitted comments will be included in the meeting record. During the live meeting, those who wish to comment will be able to do so during the public comment period.

Participants can join the meeting via computer at this link: *https://bit.ly/SeptIATF2022* or by phone. Call in (audio only): Dial: 202–765–1264: Phone Conference ID: 665 065 370#.

Special accommodation requests should be directed to OVBD at (202) 205–6773 or *veteransbusiness@sba.gov.* All applicable documents will be posted on the IATF website prior to the meeting: *https://www.sba.gov/page/interagency-task-force-veterans-small-business-development.* For more information on veteran-owned small business programs, please visit *www.sba.gov/ovbd.*

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C., appendix 2), SBA announces the meeting of the Interagency Task Force on Veterans Small Business Development (IAFT). The IATF is established pursuant to Executive Order 13540 to coordinate the efforts of Federal agencies to improve capital, business development opportunities, and pre-established federal contracting goals for small business concerns owned and controlled by veterans and service-disabled veterans. The purpose of this meeting is to discuss efforts that support veteran-owned small businesses, updates on past and current events, and the IATF's objectives for fiscal year 2022.

Dated: August 4, 2022.

Andrienne Johnson,

Committee Management Officer.

[FR Doc. 2022–17245 Filed 8–10–22; 8:45 am]

BILLING CODE 8026–09–P

SMALL BUSINESS ADMINISTRATION

National Small Business Development Center Advisory Board

AGENCY: Small Business Administration.

ACTION: Notice of open Federal Advisory Committee meeting.

SUMMARY: The SBA is issuing this notice to announce the date, time and agenda for a meeting of the National Small Business Development Center Advisory Board. The meeting will be open to the public; however, advance notice of attendance is required.

DATES: Tuesday, September 6, 2022, at 1 p.m. EDT/10 a.m. PST.

ADDRESSES: Meeting will be held via Microsoft Teams and in-person at the Marriott Marquis San Diego, Marina, 333 West, Harbor Drive, San Diego, CA 92101.

FOR FURTHER INFORMATION CONTACT: Rachel Karton, Office of Small Business Development Centers, U.S. Small Business Administration, 409 Third Street SW, Washington, DC 20416; *Rachel.newman-karton@sba.gov;* 202–619–1816. If anyone wishes to be a listening participant or would like to request accommodations, please contact Rachel Karton at the information above.

SUPPLEMENTARY INFORMATION: Pursuant to section l0(a) of the Federal Advisory Committee Act (5 U.S.C. Appendix 2), the SBA announces the meetings of the National SBDC Advisory Board. This Board provides advice and counsel to the SBA Administrator and Associate Administrator for Small Business Development Centers.

Purpose: The purpose of the meeting is to discuss the following pertaining to the SBDC Program:

- Administration Priorities
- Increasing Board Member Awareness and Understanding of the SBDC Program

Andrienne Johnson,

Committee Management Officer.

[FR Doc. 2022–17240 Filed 8–10–22; 8:45 am]

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SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #17546 and #17547; Kentucky Disaster Number KY–00093]

Presidential Declaration Amendment of a Major Disaster for the State of Kentucky

AGENCY: U.S. Small Business Administration.

ACTION: Amendment 3.

SUMMARY: This is an amendment of the Presidential declaration of a major disaster for the State of Kentucky (FEMA–4663–DR), dated 07/30/2022.

Incident: Severe Storms, Flooding, Landslides, and Mudslides.

Incident Period: 07/26/2022 and continuing.

DATES: Issued on 08/05/2022.

Physical Loan Application Deadline Date: 09/28/2022.

Economic Injury (EIDL) Loan Application Deadline Date: 05/01/2023.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: The notice of the President's major disaster declaration for the State of KENTUCKY, dated 07/30/2022, is hereby amended to include the following areas as adversely affected by the disaster:

Primary Counties (Physical Damage and Economic Injury Loans): Leslie, Magoffin, Martin, Whitley.

Contiguous Counties (Economic Injury Loans Only):

Kentucky: Lawrence, Mccreary, Morgan.

Tennessee: Campbell, Claiborne.

West Virginia: Wayne.

All other information in the original declaration remains unchanged.

(Catalog of Federal Domestic Assistance Number 59008)

Joshua Barnes,

Acting Associate Administrator for Disaster Assistance.

[FR Doc. 2022–17243 Filed 8–10–22; 8:45 am]

BILLING CODE 8026–09–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #17546 and #17547; Kentucky Disaster Number KY–00093]

Presidential Declaration Amendment of a Major Disaster for the State of Kentucky

AGENCY: Small Business Administration.

ACTION: Amendment 2.

SUMMARY: This is an amendment of the Presidential declaration of a major disaster for the State of Kentucky (FEMA–4663–DR), dated 07/30/2022.

Incident: Severe Storms, Flooding, Landslides, and Mudslides.

Incident Period: 07/26/2022 and continuing.

DATES: Issued on 08/04/2022.

Physical Loan Application Deadline Date: 09/28/2022.

Economic Injury (EIDL) Loan Application Deadline Date: 05/01/2023.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: The notice of the President's major disaster declaration for the State of Kentucky, dated 07/30/2022, is hereby amended to include the following areas as adversely affected by the disaster:

Primary Counties (Physical Damage and Economic Injury Loans): Owsley.

Contiguous Counties (Economic Injury Loans Only): No Additional Contiguous Counties.

All other information in the original declaration remains unchanged.

(Catalog of Federal Domestic Assistance Number 59008)

Joshua Barnes,

Acting Associate Administrator for Disaster Assistance.

[FR Doc. 2022–17244 Filed 8–10–22; 8:45 am]

BILLING CODE 8026–09–P

SMALL BUSINESS ADMINISTRATION

Meeting of the Advisory Committee on Veterans Business Affairs

AGENCY: Small Business Administration (SBA).

ACTION: Notice of open federal advisory committee meeting.

SUMMARY: The SBA is issuing this notice to announce the date, time, and agenda for a meeting of the Advisory Committee on Veterans Business Affairs (ACVBA).

DATES: Thursday, September 8, 2022, from 9:00 a.m. to 3:30 p.m. EST.

ADDRESSES: Due to the coronavirus pandemic, the meeting will be held via Microsoft Teams using a call-in number listed below.

FOR FURTHER INFORMATION CONTACT: The meeting is open to the public; however advance notice of attendance is strongly encouraged. To RSVP and confirm attendance, the general public should email *veteransbusiness@sba.gov* with subject line—''RSVP for September 8, 2022, ACVBA Public Meeting.'' To submit a written comment, individuals should email *veteransbusiness@sba.gov* with subject line—''Response for September 8, 2022, ACVBA Public Meeting'' no later than August 29, 2022, or contact Timothy Green, Deputy Associate Administrator, Office of Veterans Business Development (OVBD) at (202) 205–6773. Comments received in advanced will be addressed as time allows during the public comment period. All other submitted comments will be included in the meeting record. During the live meeting, those who wish to comment will be able to do so during the public comment period.

Participants can join the meeting via computer *https://bit.ly/SeptACVBA2022* or by phone. Call in (audio only): Dial: 202–765–1264: Phone Conference ID: 947 720 437#.

Special accommodation requests should be directed to OVBD at (202) 205–6773 or *veteransbusiness@sba.gov.* All applicable documents will be posted on the ACVBA website prior to the meeting: *https://www.sba.gov/page/advisory-committee-veterans-business-affairs.* For more information on veteran-owned small business programs, please visit *www.sba.gov/ovbd.*

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C., appendix 2), SBA announces the meeting of the Advisory Committee on Veterans Business Affairs. The ACVBA is established pursuant to 15 U.S.C. 657(b) note and serves as an independent source of advice and policy. The purpose of this meeting is to discuss efforts that support veteran-owned small businesses, updates on past and current events, and the ACVBA's objectives for fiscal year 2022.

Dated: August 5, 2022.

Andrienne Johnson,

Committee Management Officer.

[FR Doc. 2022–17246 Filed 8–10–22; 8:45 am]

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DEPARTMENT OF STATE

[Public Notice: 11815]

Report to Congress Pursuant to Section 353(b) of the United States—Northern Triangle Enhanced Engagement Act

ACTION: Notice of report.

SUMMARY: This report on Corrupt and Undemocratic Actors is submitted in fulfilment of the State Department's congressional reporting requirement for 2022 regarding foreign persons who have knowingly engaged in actions that undermine democratic processes or institutions, significant corruption, or obstruction of such corruption in El Salvador, Guatemala, and Honduras pursuant to Section 353(b) of the United States—Northern Triangle Enhanced Engagement Act. On November 10, 2021, the president signed the Reinforcing Nicaragua's Adherence to Conditions for Electoral Reform (RENACER) Act, which added Nicaragua to the countries subject to the Section 353 Corrupt and Undemocratic Actors list.

SUPPLEMENTARY INFORMATION: Report to Congress on Foreign Persons Who Have Knowingly Engaged in Actions that Undermine Democratic Processes or Institutions, Significant Corruption, or Obstruction of Investigations Into Such Acts of Corruption in El Salvador, Guatemala, Honduras, and Nicaragua, Pursuant to Section 353(b) of the Department of State, Foreign Operations, and Related Programs Appropriations Act, 2021 (Div. FF, Pub. L. 116–260, as amended) (Section 353).

Consistent with Section 353(b) of the United States—Northern Triangle Enhanced Engagement Act (Div. FF, Pub. L. 116–260) (the Act), as amended, this report is being submitted to the House Foreign Affairs Committee, Senate Foreign Relations Committee, House Committee on the Judiciary, and the Senate Committee on the Judiciary.

Section 353(b) requires the submission of a report that identifies the following persons in El Salvador, Guatemala, Honduras, and Nicaragua: foreign persons who the President has determined have knowingly engaged (1) in actions that undermine democratic processes or institutions; (2) in significant corruption; and (3) in obstruction of investigations into such acts of corruption, including the following: corruption related to government contracts; bribery and extortion; the facilitation or transfer of the proceeds of corruption, including through money laundering; and acts of

violence, harassment, or intimidation directed at governmental and nongovernmental corruption investigators. On November 10, 2021, the President signed the Reinforcing Nicaragua's Adherence to Conditions for Electoral Reform (RENACER) Act, adding Nicaragua to the countries within the scope of Section 353. On June 21, 2021, the President delegated his authority under Section 353 to the Secretary of State.

Under Section 353, foreign persons identified in the report submitted to Congress are generally ineligible for visas and admission to the United States and any current visa shall be revoked immediately and any other valid visa or entry documentation cancelled. Consistent with Section 353(g), this report will be published in the **Federal Register**.

This report includes individuals who the Secretary has determined have engaged in the relevant activity based upon credible information or allegations of the conduct at issue, from media reporting and other sources. The Department will continue to review the individuals listed in the report and consider all available tools to deter and disrupt corrupt and undemocratic activity in El Salvador, Guatemala, Honduras, and Nicaragua. The Department also continues to actively review additional credible information and allegations concerning corruption or undemocratic activity and to utilize all applicable authorities, as appropriate, to ensure corrupt or undemocratic officials are denied safe haven in the United States.

El Salvador

Cecilia Coronada Alvarenga de Figueroa, spouse of former Public Security Minister Rene Mario Figueroa Figueroa, facilitated the transfer of proceeds of corruption when she assisted her husband in laundering over $3 million in public funds, while her husband was Minister of Public Security during the Saca administration.

Rene Mario Figueroa Figueroa, former Public Security Minister under the Saca Administration, during his time as Minister engaged in significant corruption when he converted $3 million in public funds for his and his wife's personal use and, with his wife, laundered those funds.

Jose Wilfredo Salgado Garcia, Mayor of San Miguel, undermined democratic processes or institutions when he used his official position to participate in drug trafficking and money laundering while mayor of San Miguel, El Salvador's second largest city. Salgado used his connections with city law enforcement to intimidate his electoral opponent's family.

Francisco Javier Argueta Gomez, current Presidential Legal Advisor, undermined democratic processes or institutions by masterminding the removal of five Supreme Court Magistrates and the Attorney General in an unusual process in apparent contravention of the processes set out in Article 186 of the Constitution, which requires the selection of such Magistrates from a list of candidates drafted by the National Council of the Judiciary.

Christian Reynaldo Guevara Guadron, Legislative Assembly Deputy and Nuevas Ideas Party's Chief of Faction, undermined democratic processes or institutions when he introduced a Gang Prohibition Law that will punish with up to 15 years in prison the dissemination of gang messages in the media, considered by many observers to be a clear attempt to censor the media.

Jose Ernesto Sanabria, current Presidential Press Secretary, undermined democratic processes or institutions by using his position and wielding the Presidency's influence to inappropriately pressure officials in opposition political parties to resign on threat of being charged with criminal offenses.

Guatemala

Dennis Billy Herrera Arita, a Guatemalan lawyer, undermined the democratic process or institutions by participating in the ''Parallel Commissions 2020'' scheme to stack the Supreme and Appellate Courts with corrupt judges.

Carlos Estuardo Galvez Barrios, former Rector of the University of San Carlos (USAC), undermined the democratic process or institutions by using his standing in the legal community to influence members of the judicial nomination commission in the facilitation of the ''Parallel Commissions 2020'' scheme to stack the Supreme Court and Appellate Courts with corrupt judges.

Jose Rafael Curruchiche Cacul (Rafael Curruchiche), the current chief of the Public Ministry's Office of the Special Prosecutor Against Impunity (FECI), obstructed investigations into acts of corruption by disrupting high-profile corruption cases against government officials and raising apparently spurious claims against FECI prosecutors, private attorneys, and former International Commission Against Impunity in Guatemala (CICIG) prosecutors.

Axel Arturo Samayoa Camacho, the owner of several trucking and shipping companies operating in the government-run EMPORNAC (Atlantic) and EPQ (Pacific) ports, engaged in significant corruption by improperly colluding with public officials and paying bribes to ensure his companies won lucrative port contracts.

Ramiro Mauricio Lopez Camey, the current co-owner of construction company Asfaltos y Petróleos S.A. (Aspetro), engaged in significant corruption by paying bribes to receive government construction contracts.

Ramon ''Moncho'' Campollo Codina, a current owner of Corporacion Energias de Guatemala, engaged in significant corruption by bribing public officials and in a manner that harmed U.S. commercial and policy goals to improve energy efficiency.

Geisler Smaille Perez Dominguez, a current judge for the Third Criminal Court, undermined democratic processes by obstructing prosecutions of proponents of the ''Parallel Commissions 2020'' scheme to stack the Supreme Court and Appellate Courts with corrupt judges.

Sofia Janeth Hernandez Herrera, the current congressional representative for the Union del Cambio Nacional (UCN) party, undermined the democratic process or institutions by misusing her official powers to intimidate her political opponents. She also solicited bribes and threatened to weaponize the legitimate purposes of Guatemala's congress to retaliate against her enemies for personal benefit.

Steffan Christian Emanuel Lehnhoff Hernandez, a current owner of Corporacion Energias de Guatemala, engaged in significant corruption by bribing public officials and in a manner that harmed U.S. commercial and policy goals to improve energy efficiency.

Mayra Alejandra Carrillo de Leon (Alejandra Carrillo), current Director of the Victim's Institute, undermined the democratic process or institutions by using her official position to facilitate the ''Parallel Commissions 2020'' scheme to stack the Supreme Court and Appellate Courts with corrupt judges.

Erick Gustavo Santiago de Leon, a former judge and President of the Regional Appeal Civil Court, engaged in significant corruption and obstructed investigations into acts of corruption by soliciting bribes in return for favorable court rulings in cases before him.

Nery Oswaldo Medina Mendez, a current Supreme Court of Justice magistrate, undermined the democratic process or institutions by participating in the ''Parallel Commissions 2020'' scheme to stack the Supreme Court and Appellate Courts with corrupt judges.

Vitalina Orellana y Orellana, a current Supreme Court of Justice magistrate,

undermined the democratic process or institutions by participating in the ''Parallel Commissions 2020'' scheme to stack the Supreme Court and Appellate Courts with corrupt judges.

Mauricio Lopez Oliva, the current co-owner of construction company Asfaltos y Petróleos S.A. (Aspetro), engaged in significant corruption by paying bribes to receive government construction contracts.

Victor Manuel Cruz Rivera, a current Criminal Court Judge, obstructed investigations into acts of corruption by improperly delaying court proceedings.

José Luis Benito Ruiz, the former Minister of Communications and Infrastructure from 2018–2020, engaged in significant corruption when he solicited, accepted, and offered bribes in order to maintain his official position and receive kickbacks from contractors, and facilitated the transfer of proceeds of corruption.

Honduras

Harvis Edulfo Herrera Carballo, General Manager at the Presidential Palace from 2010 to 2014, transferred proceeds of corruption when he aided the misappropriation of more than $500,000 from Bono 10 Mil, a presidential project aimed at reducing rural poverty.

Elmer Jeovanny Ordonez Espinal, Internal Controls Supervisor of the National Bank for Agricultural Development from 2010 to 2014, transferred proceeds of corruption when he aided the misappropriation of more than $500,000 from Bono 10 Mil, a presidential project aimed at reducing rural poverty.

Rasel Antonio Tome Flores, Vice President of Congress, engaged in significant corruption when he used his position as President of the National Telecommunications Commission to misappropriate approximately $327,000 in public funds.

Claudia Yamilia Noriega González, Project Coordinator for the ''Catracha Card'' Program from 2010 to 2014, transferred proceeds of corruption when she aided the misappropriation of more than $500,000 from Bono 10 Mil, a presidential project aimed at reducing rural poverty.

Carol Vanessa Alvarado Izaguirre, Finance Manager at the Presidential Palace in 2014, transferred proceeds of corruption when she aided the misappropriation of more than $500,000 from Bono 10 Mil, a presidential project aimed at reducing rural poverty.

Enrique Alberto Flores Lanza, Minister of Presidency from 2008 to 2009, engaged in significant corruption by receiving $2 million in public money from the Honduran Central Bank and improperly redistributing it to political allies.

Juan Ramon Maradiaga, General Manager of the National Bank for Agricultural Development (BANADESA) from 2010 to 2014, transferred proceeds of corruption when he aided the misappropriation of more than $500,000 from Bono 10 Mil, a presidential project aimed at reducing rural poverty.

Edgardo Antonio Casaña Mejia, a current member of Congress, engaged in significant corruption by improperly restructuring the National Institute for Teachers' Pensions to direct more than $5 million in benefits to political allies and constituents, in order to secure votes and maintain political power.

Roberto David Castillo Mejia, member of the Executive Committee of the Honduran Electrical Company (ENEE) from 2006 to 2009, engaged in corruption related to government contracts when he used his position on the ENEE Executive Committee to interfere in the public procurement process and steer contracts to a company in which he had a financial interest.

Carlos Josué Romero Puerto, Project Coordinator for Bono10 Mil, transferred proceeds of corruption when he aided the misappropriation of more than $500,000 from Bono 10 Mil, a presidential project aimed at reducing rural poverty.

Carlos Josue Montes Rodriguez, Vice Secretary of Labor in 2011, engaged in significant corruption by accepting bribes to improperly award contracts to political allies and to expedite payments.

Gonzalo Molina Solorzano, Chief of Supply for the National Bank for Agricultural Development from 2010 to 2014, transferred proceeds of corruption when he aided the misappropriation of more than $500,000 from Bono 10 Mil, a presidential project aimed at reducing rural poverty.

Juan Carlos ''El Tigre'' Bonilla Valladares, Director of the National Police from 2012 to 2013, engaged in significant corruption when he used his position as Director of the National Police to facilitate movement of cocaine through Honduras in exchange for bribes.

Javier Rodolfo Pastor Vasquez, Vice Minister of Health in 2011, engaged in significant corruption by accepting $235,000 in bribes to interfere in public procurement procedures to improperly award contracts to political allies and to expedite payments.

Nicaragua

Yubelca del Carmen Perez Alvarado, a prosecutor in the Public Prosecutor's Office headquarters in Managua, undermined democratic processes or institutions by bringing spurious charges in order to jail regime opponents in the leadup to national elections.

Erick Ramon Laguna Averruz, a judge, undermined democratic processes or institutions when he convicted and sentenced prodemocracy leaders on vague, false charges of ''undermining national integrity'' in the sham trials of opposition activist Alexis Peralta and farmer without political affiliation Santos Camilo Bellorin.

Perla de los Angeles Baca, a Chief Prosecutor in Chinandega Department, undermined democratic processes or institutions by bringing spurious charges in order to jail regime opponents in the leadup to national elections.

Rosa Velia Baca Cardoza, a judge, undermined democratic processes or institutions when she convicted and sentenced a prodemocracy leader on vague, false charges of ''undermining national integrity'' in the sham trial of opposition activist Donald Alvarenga.

Carlos Rafael Espinoza Castilla, a prosecutor, undermined democratic processes or institutions by bringing spurious charges in order to jail regime opponents in the leadup to national elections.

Irma Oralya Laguna Cruz, a judge, undermined democratic processes or institutions when she convicted and sentenced a prodemocracy leader on vague, false charges of ''undermining national integrity'' in the sham trial of opposition activist Evelyn Pinto.

Luis Alberto Mena Gamez, a prosecutor in Nueva Segovia, undermined democratic processes or institutions by bringing the regime's case against political prisoner Douglas Cerros and by pursuing spurious charges, convictions, and harsh sentences against private citizens who are critical of the government.

Luden Martin Quiroz Garcia, a judge, undermined democratic processes or institutions when he convicted and sentenced prodemocracy leaders on vague, false charges of ''undermining national integrity'' in the sham trials of opposition leader Ana Margarita Vijil, journalist Miguel Mendoza, former Foreign Minister Mauricio Diaz, former presidential candidate Cristiana Chamorro, opposition member Pedro Joaquin Chamorro, employees of the Violeta Barrios de Chamorro Foundation (FVBCH) Pedro Vasquez, Walter Gomez,

and Marcos Fletes; and former National Assembly member Maria Fernanda Flores.

Melvin Leopoldo Vargas Garcia, a judge, undermined democratic processes or institutions when he convicted and sentenced a prodemocracy leader on vague, false charges of ''undermining national integrity'' in the sham trial of opposition activist Samantha Jiron.

Angel Jancarlos Fernandez Gonzalez, a judge, undermined democratic processes or institutions when he convicted and sentenced prodemocracy leaders on vague, false charges of ''undermining national integrity'' in the sham trials of private sector leaders Luis Rivas, Michael Healy, and Alvaro Vargas; former Sandinista leader Dora Maria Tellez; opposition leaders Jose Antonio Peraza and Victor Hugo Tinoco.

Nancy Del Carmen Aguirre Gudiel, a judge, undermined democratic processes or institutions when she convicted and sentenced a prodemocracy leader on vague, false charges of ''undermining national integrity'' in the sham trial of opposition activist Irving Larios.

Jorge Luis Arias Jarquin, a prosecutor in the Public Prosecutor's Office headquarters in Managua, undermined democratic processes or institutions by bringing spurious charges in order to jail regime opponents in the leadup to national elections.

William Irving Howard Lopez, a judge, undermined democratic processes or institutions when he convicted and sentenced a prodemocracy leader on vague, false charges of ''undermining national integrity'' in the sham trial of opposition activist Nidia Barbosa.

Martha Ileana Morales Mendoza, a prosecutor and the Director of Planning at the Public Prosecutor's Office headquarters in Managua, undermined democratic processes or institutions by bringing spurious charges in order to jail regime opponents in the leadup to national elections.

Maria Francis Perez Mojica, a prosecutor in Nueva Segovia, undermined democratic processes or institutions when she led the regime's case against pro-democracy activist and political prisoner Donald Alvarenga and pursued spurious charges, convictions, and harsh sentences against the regime's prodemocracy opponents.

Veronica Fiallos Moncada, a judge, undermined democratic processes or institutions when she convicted and sentenced a prodemocracy leader on vague, false charges of ''undermining national integrity'' in the sham trial of political prisoner Douglas Cerros.

Felix Ernesto Salmeron Moreno, a judge, undermined democratic processes or institutions when he convicted and sentenced prodemocracy leaders on vague, false charges of ''undermining national integrity'' in the sham trials of former presidential candidates Juan Sebastian Chamorro, Felix Maradiaga, Arturo Cruz, and Medardo Mairena; civic leaders Pedro Mena, Jose Pallais, Violeta Granera, Tamara Davila, Jose Quintanilla Hernandez, Roger Reyes; and business leader Jose Adan Aguerri.

Rolando Salvador Sanarrusia Munguia, a judge, undermined democratic processes or institutions when he convicted and sentenced prodemocracy leaders on vague, false charges of ''undermining national integrity'' in the sham trial of opposition activist Yoel Sandino.

Marling de Jesus Castro Rodriguez, a prosecutor in the Public Prosecutor's Office headquarters in Managua, undermined democratic processes or institutions by bringing spurious charges in order to jail regime opponents in the leadup to national elections.

Nadia Camila Tardencilla Rodriguez, a judge, undermined democratic processes or institutions when she convicted and sentenced prodemocracy leaders on vague, false charges of ''undermining national integrity'' in the sham trials of student leaders Lesther Aleman and Max Jerez, former presidential candidate Miguel Mora, political analyst Edgar Parrales, Director of La Prensa newspaper Juan Lorenzo Holmann, and electoral expert Harry Chavez.

Andrea del Carmen Salas, a prosecutor in the Public Prosecutor's Office headquarters in Managua, undermined democratic processes or institutions by bringing spurious charges in order to jail regime opponents in the leadup to national elections.

Ulisa Yahoska Tapia Silva, a judge, undermined democratic processes or institutions when she convicted and sentenced prodemocracy leaders on vague, false charges of ''undermining national integrity'' in the sham trials of opposition activists Yaser Vado and Yader Parajon, former Foreign Minister Francisco Aguirre Sacasa, opposition leader Suyen Barahona, civic leader Freddy Navas, human rights lawyer Maria Oviedo, former presidential candidate Noel Vidaurre, and political commentator Jaime Arellano.

Auxiliadora del Carmen Sequeira Suazo, a prosecutor in Esteli, undermined democratic processes or institutions by bringing the regime's case against pro-democracy activist and political prisoner Alexis Peralta and by pursuing spurious charges, convictions, and harsh sentences against regime opponents.

Dated: August 2, 2022.

Wendy R. Sherman,

Deputy Secretary of State.

[FR Doc. 2022–17215 Filed 8–10–22; 8:45 am]

BILLING CODE 4710–29–P

DEPARTMENT OF STATE

[Public Notice: 11816]

Bureau of Political-Military Affairs, Directorate of Defense Trade Controls: Notifications to the Congress of Proposed Commercial Export Licenses

ACTION: Notice.

SUMMARY: The Directorate of Defense Trade Controls and the Department of State give notice that the attached Notifications of Proposed Commercial Export Licenses were submitted to the Congress on the dates indicated.

DATES: The dates of notification to Congress are as shown on each of the 13 letters.

FOR FURTHER INFORMATION CONTACT: Ms. Paula C. Harrison, Directorate of Defense Trade Controls (DDTC), Department of State at (202) 663–3310; or access the DDTC website at *https://www.pmddtc.state.gov/ddtc* public and select ''Contact DDTC,'' then scroll down to ''Contact the DDTC Response Team'' and select ''Email.'' Please add this subject line to your message, ''ATTN: Congressional Notification of Licenses.''

SUPPLEMENTARY INFORMATION: Section 36(f) of the Arms Export Control Act (22 U.S.C. 2776) requires that notifications to the Congress pursuant to sections 36(c) and 36(d) be published in the **Federal Register** in timely manner. The following comprise recent such notifications and are published to give notice to the public.

April 8, 2022

The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license amendment for the export of defense articles, including technical data and defense services, in the amount of $50,000,000 or more.

The transaction contained in the attached certification involves the export of defense articles, including technical data and defense services, to Saudi Arabia, UK and Australia to support operation, training and

maintenance of Scan Eagle 2, Scan Eagle 3, and Integrator Unmanned Aerial Systems.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–042.

April 13, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of firearms, parts, and components abroad controlled under Category I of the U.S. Munitions List in the amount of $1,000,000 or more.

The transaction contained in the attached certification involves the export to Thailand of M4 5.56mm automatic rifles.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–080.

April 13, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of firearms, parts, and components abroad controlled under Category I of the U.S. Munitions List in the amount of $1,000,000 or more.

The transaction contained in the attached certification involves the export to the UK of 5.56mm automatic rifles and sound suppressors.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–082.

April 20, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of defense articles, including technical data and defense services, in the amount of $50,000,000 or more.

The transaction contained in the attached certification involves the export of defense articles, including technical data and defense services, to Norway and the UK to support maintenance, repair, overhaul, and upgrade of the F135 propulsion system.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–054.

April 20, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of firearms, parts, and components abroad controlled under Category I of the U.S. Munitions List in the amount of $1,000,000 or more.

The transaction contained in the attached certification involves the export to Italy and Kuwait of M16 automatic rifles, M4 5.56mm automatic carbines, and associated spare parts.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–075.

April 20, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of firearms controlled under Category I of the U.S. Munitions List in the amount of $1,000,000 or more.

The transaction contained in the attached certification involves the export of M16A4 5.56mm automatic rifles to Thailand.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–077.

May 2, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) and (d) of the Arms Export Control Act, please find enclosed a certification of a proposed license amendment for the manufacture of significant military equipment abroad and the export of defense articles, including technical data and defense services, in the amount of $50,000,000 or more.

The transaction contained in the attached certification involves the export of defense articles, including technical data and defense services, to Taiwan to support the manufacture of F100 Engine Combustion Chamber Liners.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.

May 3, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license amendment for the export of defense articles, including technical data and defense services, in the amount of $100,000,000 or more.

The transaction contained in the attached certification involves the export of defense articles, including technical data and defense services, to the United Kingdom to promote the design, development, and testing of LiON batteries for use in the F–35 Joint Strike Fighter aircraft.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information

submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 22–010.

May 4, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of firearms, parts, and components abroad controlled under Category I of the U.S. Munitions List in the amount of $1,000,000 or more.

The transaction contained in the attached certification involves the export to the UAE of GAU–5A 5.56mm fully automatic rifles and associated spare parts.

The U.S. government is prepared to license the export of these items having considered political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–085.

May 11, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Sections 36(c) and 36(d) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of defense articles, including technical data and defense services, in the amount of $50,000,000 or more.

The transaction contained in the attached certification involves the transfers of unclassified technical data, hardware, and defense services, to the Kingdom of Saudi Arabia for the purpose of manufacture, integration, troubleshooting, and maintenance of RF–7850M–HH Multiband and RF–7850M–V5XX Multiband Vehicular radio.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–068.

May 26, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of defense articles, including technical data and defense services, in the amount of $50,000,000 or more.

The transaction contained in the attached certification involves the export of defense articles, including technical data and defense services, to the British Virgin Islands, UAE, and UK for small arms and tactics training of private security contractors.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 20–077.

May 26, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of defense articles, including technical data and defense services, in the amount of $50,000,000 or more.

The transaction contained in the attached certification involves the export of defense articles, including technical data and defense services, to Canada and Singapore to support the manufacture of castings for aerospace components.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
David Bonine,
Senior Bureau Official, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 22–004.

June 30, 2022
The Honorable Nancy Pelosi, *Speaker of the House of Representatives.*

Dear Madam Speaker:

Pursuant to Section 36(c) of the Arms Export Control Act, please find enclosed a certification of a proposed license for the export of defense articles, including technical data and defense services, in the amount of $50,000,000 or more.

The transaction contained in the attached certification involves the export of defense articles, including technical data and defense services, to the UAE for the general use, installation, operation and testing of the FMU–139D/B electronic bomb fuze system.

The U.S. government is prepared to license the export of these items having taken into account political, military, economic, human rights, and arms control considerations.

More detailed information is contained in the formal certification which, though unclassified, contains business information submitted to the Department of State by the applicant, publication of which could cause competitive harm to the U.S. firm concerned.

Sincerely,
Naz Durakoglu,
Assistant Secretary, Bureau of Legislative Affairs.
Enclosure: Transmittal No. DDTC 21–055.

Kevin E. Bryant,

Acting Director, Office of Directives Management, Department of State.

[FR Doc. 2022–17233 Filed 8–10–22; 8:45 am]

BILLING CODE 4710–25–P

DEPARTMENT OF STATE

[Public Notice: 11817]

Notice of Public Meeting in Preparation for the International Maritime Organization TC 72 Meeting

The Department of State will conduct a public meeting at 10:00 a.m. on Wednesday, October 12, 2022, both in Washington, DC and by way of teleconference. The primary purpose of this meeting is to prepare for the seventy second session of the International Maritime Organization's (IMO) Technical Cooperation Committee (TC 72) to be held at the IMO Headquarters in London, United Kingdom from Monday, October 17, to Friday, October 21, 2022.

Members of the public may participate in person or up to the capacity of the teleconference phone line, which can handle 500 participants. To attain details on attending in-person or participating via the teleconference line, participants should contact the meeting coordinator, LCDR Jessica Anderson, by email at *Jessica.P.Anderson@uscg.mil.*

The agenda items to be considered at this meeting mirror those to be considered at TC 72, and include:

—Adoption of the agenda
—Work of other bodies and organizations
—Integrated Technical Cooperation Programme: Annual report for 2021
—Resource mobilization and partnerships
—The 2030 Agenda for Sustainable Development
—Long-term strategy for the review and reform of IMO's technical cooperation
—Regional presence and coordination
—IMO Member State Audit Scheme

—Capacity-building: Strengthening the impact of women in the maritime sector
—Global maritime training institutions
—Application of the document on the *Organization and method of work of the Technical Cooperation Committee*
—Work programme
—Election of the Chair and Vice-Chair for 2023
—Any other business
—Consideration of the report of the Committee on its seventy-second session

Please note: the Committee may adjust the TC 72 agenda to accommodate the constraints associated with the hybrid meeting format. Any changes to the agenda will be reported to those who RSVP.

Those who plan to participate may contact the meeting coordinator, LCDR Jessica Anderson, by email at *Jessica.P.Anderson@uscg.mil,* by phone at (202) 372–1376, or in writing at 2703 Martin Luther King Jr. Ave. SE, Stop 7509, Washington, DC 20593–7509 prior to the meeting with any questions. Members of the public needing reasonable accommodation should advise LCDR Anderson not later than September 30, 2022. Requests made after that date will be considered, but might not be possible to fulfill.

Additional information regarding this and other IMO public meetings may be found at: *https://www.dco.uscg.mil/IMO.*

(Authority: 22 U.S.C. 2656.)

Emily A. Rose,

Coast Guard Liaison Officer, Office of Ocean and Polar Affairs, Department of State.

[FR Doc. 2022–17234 Filed 8–10–22; 8:45 am]

BILLING CODE 4710–09–P

OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE

Notice With Respect to List of Countries Denying Fair Market Opportunities for Government-Funded Airport Construction Projects

AGENCY: Office of the United States Trade Representative.

ACTION: Notice.

SUMMARY: The U.S. Trade Representative has determined not to list any countries as denying fair market opportunities for U.S. products, suppliers, or bidders in foreign government-funded airport construction projects.

FOR FURTHER INFORMATION CONTACT: Kate Psillos, International Procurement Negotiator, *Kathryn.W.Psillos@ustr.eop.gov* or 202–395–9581, or Edward Marcus, Assistant General Counsel, *Edward.D.Marcus@ustr.eop.gov* or 202–395–0448.

SUPPLEMENTARY INFORMATION: Section 533 of the Airport and Airway Improvement Act of 1982, as amended by section 115 of the Airport and Airway Safety and Capacity Expansion Act of 1987, Public Law 100–223 (*codified at* 49 U.S.C. 50104), requires the U.S. Trade Representative to decide whether any foreign country has denied fair market opportunities to U.S. products, suppliers, or bidders in connection with airport construction projects of $500,000 or more that are funded in whole or in part by the government of such country. The Office of the United States Trade Representative has not received any complaints or other information indicating that U.S. products, suppliers, or bidders are being denied fair market opportunities in such airport construction projects. As a consequence, the U.S. Trade Representative has decided not to list any countries as denying fair market opportunities for U.S. products, suppliers, or bidders in foreign government-funded airport construction projects.

Heather Hurlburt,

Chief of Staff. Office of the United States Trade Representative.

[FR Doc. 2022–17232 Filed 8–10–22; 8:45 am]

BILLING CODE 3290–F1–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[FAA Docket Number: FAA–2022–1094]

NextGen Advisory Committee; Notice of Public Meeting

AGENCY: Federal Aviation Administration (FAA), Department of Transportation.

ACTION: Notice of public meeting.

SUMMARY: This notice announces a meeting of the NextGen Advisory Committee (NAC).

DATES: The meeting will be held, on August 30, 2022, from 9:00 a.m.–4:00 p.m. ET. Requests to attend the meeting in-person or virtually must be received by August 22, 2022. Request for accommodations for a disability must be received by August 22, 2022. If you wish to make a public statement during the meeting, you must submit a written copy of your remarks by August 22, 2022. Written materials requested to be reviewed by NAC Members before the meeting must be received no later than August 22, 2022.

ADDRESSES: The meeting will be held in-person at The MITRE Corporation, MITRE 1 Building Conference Center, 7525 Colshire Drive, McLean, VA 22102 with a virtual option. Virtual meeting information will be provided upon request at the time of registration. Information on the NAC, including copies of previous meeting minutes, is available on the NAC internet website at *https://www.faa.gov/about/office_org/headquarters_offices/ang/nac/.* Members of the public interested in attending must send the required information listed in the **SUPPLEMENTARY INFORMATION** section to *9-AWA-ANG-NACRegistration@faa.gov.*

FOR FURTHER INFORMATION CONTACT: Kimberly Noonan, NAC Coordinator, U.S. Department of Transportation, at *Kimberly.Noonan@faa.gov* or 202–267–3760. Any requests or questions not regarding attendance registration should be sent to the person listed in this section.

SUPPLEMENTARY INFORMATION:

I. Background

The Secretary of Transportation established the NAC under agency authority in accordance with the provisions of the Federal Advisory Committee Act (FACA), as amended, Public Law 92–463, 5 U.S.C. App. 2, to provide independent advice and recommendations to the FAA and to respond to specific taskings received directly from the FAA. The NAC recommends consensus-driven advice for FAA consideration relating to Air Traffic Management System modernization.

II. Agenda

At the meeting, the agenda will cover the following topics:

- NAC Chairman's Report
- FAA Report
- NAC Subcommittee Chairman's Report
  - Risk and Mitigations update for the following focus areas: Multiple Runway Operations, Data Communications, Performance Based Navigation, Surface and Data Sharing, and Northeast Corridor
- NAC Chairman Closing Comments

The detailed agenda will be posted on the NAC internet website at least one week in advance of the meeting.

III. Public Participation

The meeting is open to the public. Members of the public who wish to attend are asked to register via email by submitting their full legal name, country

of citizenship, contact information (telephone number and email address), and name of your industry association, or applicable affiliation, and if they would like to attend the meeting in-person or virtually. Please email this information to the email address listed in the **ADDRESSES** section. For foreign national in-person attendees, please also provide your company/organization country. When registration is confirmed, registrants who requested to attend virtually will be provided the virtual meeting information/teleconference call-in number and passcode. Callers are responsible for paying associated long-distance charges (if any).

Note: Only NAC Members, members of the public who have registered to make a public statement, and NAC working groups and FAA staff who are providing briefings will have the ability to speak. All other attendees will be able to listen-only.

The U.S. Department of Transportation is committed to providing equal access to this meeting for all participants. If you need alternative formats or services because of a disability, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Five minutes will be allotted for oral comments from members of the public joining the meeting. This time may be extended if there is a significant number of members of the public wishing to provide an oral comment. To accommodate as many speakers as possible, the time for each commenter may be limited. Individuals wishing to reserve speaking time during the meeting must submit a request at the time of registration, as well as the name, address, and organizational affiliation of the proposed speaker. If the number of registrants requesting to make statements is greater than can be reasonably accommodated during the meeting, the FAA may conduct a lottery to determine the speakers. Speakers are required to submit a copy of their prepared remarks for inclusion in the meeting records and for circulation to NAC members to the person listed under the heading **FOR FURTHER INFORMATION CONTACT**. All prepared remarks submitted on time will be accepted and considered as part of the meeting's record.

Members of the public may submit written statements for inclusion in the meeting records and circulation to the NAC members. Written statements need to be submitted to the person listed under the heading **FOR FURTHER INFORMATION CONTACT**. Comments received after the due date listed in the **DATES** section will be distributed to the members but may not be reviewed prior to the meeting. Any member of the public may present a written statement to the committee at any time.

Signed in Washington, DC

Kimberly Noonan,

Manager, Stakeholder and Collaboration Division (A), NextGen Office of Collaboration and Messaging, ANG–M, Office of the Assistant Administrator for NextGen, Federal Aviation Administration.

[FR Doc. 2022–17205 Filed 8–10–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

NextGen Advisory Committee; Charter Renewal

AGENCY: Federal Aviation Administration, Department of Transportation.

ACTION: Notice of NextGen Advisory Committee (NAC) charter renewal.

SUMMARY: The Federal Aviation Administration (FAA) is issuing this notice to advise the public of the renewal of the NAC for two years. The Secretary of Transportation established the NAC under agency authority in accordance with the provisions of the Federal Advisory Committee Act, as amended. The Secretary determined the NAC is necessary and is in the public interest. The nature and purpose of the NAC is to seek resolution of issues and challenges involving concepts, requirements, operational capabilities, the associated use of technology, and related considerations to aeronautical operations that affect the future of the Air Traffic Management System and the integration of new technologies.

FOR FURTHER INFORMATION CONTACT: Any committee-related request should be sent to Kimberly Noonan, Manager, Stakeholder and Collaboration Division, at *Kimberly.Noonan@faa.gov* or 202–267–3760.

SUPPLEMENTARY INFORMATION: Pursuant to section 14 of the Federal Advisory Committee Act, FAA is giving notice of the renewal of the NAC charter. The primary goals of the NAC are to provide advice on agency-level issues facing the aviation community in implementing the Next Generation Air Transportation System (NextGen) modernization efforts across the National Airspace System. NAC membership is structured to maintain a deliberately balanced distribution of the aviation community representation in order for FAA to align its investments. Complete information regarding the NAC is available on the FAA website at *https://www.faa.gov/about/office_org/headquarters_offices/ang/nac/.*

Issued in Washington, DC.

Kimberly Noonan,

Manager, Stakeholder and Collaboration Division (A), NextGen Office of Collaboration and Messaging, ANG–M, Office of the Assistant Administrator for NextGen, Federal Aviation Administration.

[FR Doc. 2022–17062 Filed 8–10–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2022–0148]

Commercial Driver's License: Application for Exemption; National School Transportation Association

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of application for exemption; request for comments.

SUMMARY: FMCSA announces that the National School Transportation Association (NSTA) has applied for an exemption for commercial driver's license (CDL) applicants seeking a school bus endorsement, from the engine compartment portion of the pre-trip vehicle inspection skills testing requirement, known as the ''under-the-hood'' testing requirement. Drivers issued a CDL pursuant to the requested exemption would be restricted to the intrastate operation of school buses only. FMCSA requests public comment on the applicant's request for exemption.

DATES: Comments must be received on or before September 12, 2022.

ADDRESSES: You may submit comments identified by Federal Docket Management System (FDMS) Number FMCSA–2022–0148 by any of the following methods:

- *Federal eRulemaking Portal: www.regulations.gov.* See the Public Participation and Request for Comments section below for further information.
- *Mail:* Dockets Operations, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building, Ground Floor, Room W12–140, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* West Building, Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, between 9 a.m. and 5 p.m. E.T., Monday through Friday, except Federal holidays.
- *Fax:* (202) 493–2251.

Each submission must include the Agency name and the docket number

(FMCSA–2022–0148) for this notice. Note that DOT posts all comments received without change to *www.regulations.gov,* including any personal information included in a comment. Please see the Privacy Act heading below.

Docket: For access to the docket to read background documents or comments, go to *www.regulations.gov* at any time or visit Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., ET, Monday through Friday, except Federal holidays. To be sure someone is there to help you, please call (202) 366–9317 or (202) 366–9826 before visiting Dockets Operations.

Privacy Act: In accordance with 49 U.S.C. 31315(b), DOT solicits comments from the public to better inform its exemption process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice DOT/ALL 14—FDMS, which can be reviewed at *https://www.transportation.gov/privacy.*

FOR FURTHER INFORMATION CONTACT: Mr. Richard Clemente, Driver and Carrier Operations Division; Office of Carrier, Driver and Vehicle Safety Standards, FMCSA, at (202) 366–2722 or by email at *richard.clemente@dot.gov.* If you have questions on viewing or submitting material to the docket, contact Dockets Operations at (202) 366–9826.

SUPPLEMENTARY INFORMATION:

I. Public Participation and Request for Comments

FMCSA encourages you to participate by submitting comments and related materials.

Submitting Comments

If you submit a comment, please include the docket number for this notice (FMCSA–2022–0148), indicate the specific section of this document to which the comment applies, and provide a reason for suggestions or recommendations. You may submit your comments and material online or by fax, mail, or hand delivery, but please use only one of these means. FMCSA recommends that you include your name and a mailing address, an email address, or a phone number in the body of your document so the Agency can contact you if it has questions regarding your submission.

To submit your comment online, go to *www.regulations.gov* and put the docket number (''FMCSA–2022–0148'') in the ''Keyword'' box, and click ''Search.'' When the new screen appears, click on the ''Comment Now!'' button and type your comment into the text box in the following screen. Choose whether you are submitting your comment as an individual or on behalf of a third party and then submit. 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. FMCSA will consider all comments and material received during the comment period.

II. Legal Basis

FMCSA has authority under 49 U.S.C. 31136(e) and 31315(b) to grant exemptions from Federal Motor Carrier Safety Regulations (FMCSRs). FMCSA must publish a notice of each exemption request in the **Federal Register** (49 CFR 381.315(a)). The Agency must provide the public an opportunity to inspect the information relevant to the application, including any safety analyses that have been conducted. The Agency must provide an opportunity for public comment on the request.

The Agency reviews safety analyses and public comments submitted and determines whether granting the exemption would likely achieve a level of safety equivalent to, or greater than, the level that would be achieved by the current regulation (49 CFR 381.305). The Agency must publish its decision in the **Federal Register** (49 CFR 381.315(b)) with the reasons for denying or granting the application and, if granted, the name of the person or class of persons receiving the exemption and the regulatory provision from which the exemption is granted. The notice must specify the effective period and explain the terms and conditions of the exemption. The exemption may be renewed (49 CFR 381.300(b)).

III. Applicant's Request

The NSTA has applied for an exemption for CDL applicants from the engine compartment component of the pre-trip vehicle skills testing requirement, known as the ''under-the-hood'' testing requirement, in 49 CFR 383.113(a)(1)(i). The requested exemption would apply to CDL applicants seeking the school bus (S) and passenger (P) endorsements and the intrastate only (K) restriction. Drivers issued a CDL pursuant to the requested exemption would be restricted to the intrastate operation of school buses only. NSTA is a membership organization for school bus contract-operators engaged primarily in transporting students to and from school and school-related activities. NSTA believes the ''under-the-hood'' testing requirement is a ''barrier to entry for new school bus drivers, contributing to the nationwide driver shortage.'' NSTA requests the exemption for a five-year period.

A copy of the NSTA application for exemption is available for review in the docket for this notice.

IV. Request for Comments

In accordance with 49 U.S.C. 31315(b), FMCSA requests public comment from all interested persons on the NSTA's application for an exemption. All comments received before the close of business on the comment closing date indicated at the beginning of this notice will be considered and will be available for examination in the docket at the location listed under the **ADDRESSES** section of this notice. Comments received after the comment closing date will be filed in the public docket and will be considered to the extent practicable. In addition to late comments, FMCSA will also continue to file, in the public docket, relevant information that becomes available after the comment closing date. Interested persons should continue to examine the public docket for new material.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2022–17228 Filed 8–10–22; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF THE TREASURY

Office of the Comptroller of the Currency

FEDERAL RESERVE SYSTEM

FEDERAL DEPOSIT INSURANCE CORPORATION

Proposed Agency Information Collection Activities: Comment Request

AGENCY: Office of the Comptroller of the Currency (OCC), Treasury; Board of Governors of the Federal Reserve System (Board); and Federal Deposit Insurance Corporation (FDIC).

ACTION: Joint notice and request for comment.

SUMMARY: In accordance with the requirements of the Paperwork Reduction Act of 1995 (PRA), the OCC, the Board, and the FDIC (the agencies) may not conduct or sponsor, and the

respondent is not required to respond to, an information collection unless it displays a currently valid Office of Management and Budget (OMB) control number. On January 20, 2022, the Federal Financial Institutions Examination Council (FFIEC), of which the agencies are members, requested public comment for 60 days on a proposal to extend for three years, with revision, the Country Exposure Report (FFIEC 009) and the Country Exposure Information Report (FFIEC 009a), which are currently approved collections of information. As described in the **SUPPLEMENTARY INFORMATION** section, after considering the comments received on the proposal, the agencies are proceeding with the proposed revisions to the FFIEC 009 and FFIEC 009a, but with certain modifications. In addition, the agencies will make clarifying revisions to the report form and instructions in response to comments received on the proposal. The agencies are giving notice that they are sending the collections to OMB for review. If approved by OMB, these revisions would take effect for the December 31, 2022, report date.

DATES: Comments must be submitted on or before September 12, 2022.

ADDRESSES: Interested parties are invited to submit written comments to any or all of the agencies. All comments, which should refer to the OMB control number(s), will be shared among the agencies.

OCC: You may submit comments, which should refer to ''FFIEC 009 and FFIEC 009a,'' by any of the following methods:

- *Email: prainfo@occ.treas.gov.*
- *Mail:* Chief Counsel's Office, Office of the Comptroller of the Currency, Attention: 1557–0100, 400 7th Street SW, Suite 3E–218, Washington, DC 20219.
- *Hand Delivery/Courier:* 400 7th Street SW, Suite 3E–218, Washington, DC 20219.

Instructions: You must include ''OCC'' as the agency name and ''1557–0100'' in your comment. In general, the OCC will publish comments on *www.reginfo.gov* without change, including any business or personal information provided, such as name and address information, email addresses, or phone numbers. Comments received, including attachments and other supporting materials, are part of the public record and subject to public disclosure. Do not include any information in your comment or supporting materials that you consider confidential or inappropriate for public disclosure.

You may review comments and other related materials that pertain to this information collection beginning on the date of publication of the second notice for this collection by any of the following methods:

- *Viewing Comments Electronically:* Go to *www.reginfo.gov.* Click on the ''Information Collection Review'' tab. Underneath the ''Currently under Review'' section heading, from the drop-down menu select ''Department of Treasury'' and then click ''submit.'' This information collection can be located by searching by OMB control number ''1557–0100'' or ''FFIEC 009 and FFIEC 009a.'' Upon finding the appropriate information collection, click on the related ''ICR Reference Number.'' On the next screen, select ''View Supporting Statement and Other Documents'' and then click on the link to any comment listed at the bottom of the screen.
- For assistance in navigating *www.reginfo.gov,* please contact the Regulatory Information Service Center at (202) 482–7340.

Board: You may submit comments, which should refer to ''FFIEC 009 and FFIEC 009a,'' by any of the following methods:

- *Agency website: http://www.federalreserve.gov.* Follow the instructions for submitting comments at: *http://www.federalreserve.gov/generalinfo/foia/ProposedRegs.cfm.*
- *Email: regs.comments@federalreserve.gov.* Include ''FFIEC 009 and FFIEC 009a'' in the subject line of the message.
- *Fax:* (202) 452–3819 or (202) 452–3102.
- *Mail:* Ann E. Misback, Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue NW, Washington, DC 20551.

All public comments are available on the Board's website at *https://www.federalreserve.gov/apps/foia/proposedregs.aspx* as submitted, unless modified for technical reasons. Accordingly, your comments will not be edited to remove any identifying or contact information.

FDIC: You may submit comments, which should refer to ''FFIEC 009 and FFIEC 009a,'' by any of the following methods:

- *Agency Website: https://www.fdic.gov/regulations/laws/federal/.* Follow the instructions for submitting comments on the FDIC's website.
- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Email: comments@FDIC.gov.* Include ''FFIEC 009 and FFIEC 009a'' in the subject line of the message.
- *Mail:* Manuel E. Cabeza, Counsel, Attn: Comments, Room MB–3007, Federal Deposit Insurance Corporation, 550 17th Street NW, Washington, DC 20429.
- *Hand Delivery:* Comments may be hand delivered to the guard station at the rear of the 550 17th Street Building (located on F Street) on business days between 7:00 a.m. and 5:00 p.m.

Public Inspection: All comments received will be posted without change to *https://www.fdic.gov/regulations/laws/federal/* including any personal information provided. Paper copies of public comments may be requested from the FDIC Public Information Center by telephone at (877) 275–3342 or (703) 562–2200.

Additionally, commenters may send a copy of their comments to the OMB desk officers for the agencies by mail to the Office of Information and Regulatory Affairs, U.S. Office of Management and Budget, New Executive Office Building, Room 10235, 725 17th Street NW, Washington, DC 20503; by fax to (202) 395–6974; or by email to *oira_submission@omb.eop.gov.*

FOR FURTHER INFORMATION CONTACT: For further information about the information collections discussed in this notice, please contact any of the agency staff whose names appear below. In addition, copies of the FFIEC 009 and FFIEC 009a reporting forms can be obtained at the FFIEC's website (*https://www.ffiec.gov/ffiec_report_forms.htm*).

OCC: Kevin Korzeniewski, Counsel, Chief Counsel's Office, (202) 649–5490. If you are hearing impaired, please dial 7–1–1 to access telecommunications relay services.

Board: Nuha Elmaghrabi, Federal Reserve Board Clearance Officer, (202) 452–3884, Office of the Chief Data Officer, Board of Governors of the Federal Reserve System, 20th and C Streets NW, Washington, DC 20551. Telecommunications Device for the Deaf (TDD) users may call (202) 263–4869.

FDIC: Manuel E. Cabeza, Counsel, (202) 898–3767, Legal Division, Federal Deposit Insurance Corporation, 550 17th Street NW, Washington, DC 20429.

SUPPLEMENTARY INFORMATION:

I. Summary

Report Titles: Country Exposure Report and Country Exposure Information Report.

Form Numbers: FFIEC 009 and FFIEC 009a.

Frequency of Response: Quarterly.

Affected Public: Business or other for profit.

OCC

OMB Number: 1557–0100.

Estimated Number of Respondents: 10 (FFIEC 009), 4 (FFIEC 009a).

Estimated Average Time per Response: 135 hours (FFIEC 009), 6.5 hours (FFIEC 009a).

Estimated Total Annual Burden: 5,400 hours (FFIEC 009), 104 hours (FFIEC 009a).

Board

OMB Number: 7100–0035.

Estimated Number of Respondents: 49 (FFIEC 009), 37 (FFIEC 009a).

Estimated Average Time per Response: 135 hours (FFIEC 009), 6.5 hours (FFIEC 009a).

Estimated Total Annual Burden: 26,460 hours (FFIEC 009), 962 hours (FFIEC 009a).

FDIC

OMB Number: 3064–0017.

Estimated Number of Respondents: 13 (FFIEC 009), 10 (FFIEC 009a).

Estimated Average Time per Response: 135 hours (FFIEC 009), 6.5 hours (FFIEC 009a).

Estimated Total Annual Burden: 7,020 hours (FFIEC 009), 260 hours (FFIEC 009a).

General Description of Reports

The Country Exposure Report (FFIEC 009) is filed quarterly with the agencies and provides information on international claims of U.S. banks, savings associations, Edge and/or Agreement corporations, bank holding companies, savings and loan holding companies, and U.S. intermediate holding companies of foreign banking organizations (collectively, U.S. banking organizations) that is used for supervisory and analytical purposes. The information is used to monitor the foreign country exposures of reporting institutions to determine the degree of risk in their portfolios and assess the potential risk of loss. The Country Exposure Information Report (FFIEC 009a) is a supplement to the FFIEC 009 and provides publicly available information on material foreign country exposures (*i.e.,* all exposures to a foreign country in excess of 1 percent of total assets or 20 percent of total capital, whichever is less) of U.S. banking organizations that file the FFIEC 009 report. As part of the FFIEC 009a, reporting institutions also must furnish a list of countries in which they have lending exposures above 0.75 percent of total assets or 15 percent of total capital, whichever is less.

Legal Basis and Need for Collection

These information collections are mandatory under the following statutes: 12 U.S.C. 161 and 1817 (national banks), 12 U.S.C. 1464 (federal savings associations), 12 U.S.C. 248(a)(1) and (2), 1844(c), and 3906 (state member banks and bank holding companies); 12 U.S.C. 1467a(b)(2)(A) (savings and loan holding companies); 12 U.S.C. 5365(a) (intermediate holding companies); and 12 U.S.C. 1817 and 1820 (insured state nonmember commercial and savings banks and insured state savings associations). The FFIEC 009 information collection is given confidential treatment (5 U.S.C. 552(b)(4) and (b)(8)). The FFIEC 009a information collection is not given confidential treatment.

II. Current Actions

On January 20, 2022, the agencies requested public comment to extend for three years, with revision, the FFIEC 009 and FFIEC 009a. The comment period closed on March 21, 2022. The agencies received one comment letter from a banking trade association. The commenter requested clarification of certain aspects of the proposed FFIEC 009 and FFIEC 009a reporting forms and instructions. The specific comments and the agencies' responses follow.

First, the commenter noted that the proposed change to the naming of headers for Columns 13 through 17 and 18 through 22 of Schedule C, Part I, which the agencies stated would be a nonsubstantive change, could imply that the risk transfers reported on the FFIEC 009 would be limited to only those with guarantors in countries other than that of the immediate counterparty, but would no longer include risk transfers between different sectors within the same country. The commenter recommended renaming the headers to include both other sectors and other jurisdictions to ensure there would be no substantive change in reporting. The agencies agree with the commenter's recommendation and have revised the headers accordingly. In connection with the proposed changes to the FFIEC 009 and FFIEC 009a, it was the agencies' intent that risk transfers continue to be reported according to existing reporting practices and in line with the instructions.

Second, the commenter asked for clarification on whether claims where cash collateral is provided should be included in Column 18 of Schedule C, Part II. Furthermore, the commenter stated that the use of ''collateral'' with respect to Column 18 seemed out of place and not parallel to the instructions for Column 17. In response to the comment, the agencies have combined the instructions for Columns 17 and 18 to emphasize that the same claims are to be reported, but the risk is to be assigned by different criteria. Furthermore, the revised instructions state that cash held as collateral should not be reported in these columns.

Third, with regard to Schedule C, Part II, columns, 13 through 18, the commenter asked for clarification on the reporting of collateral held against claims where risk transfer occurs because the guarantor is located in a different country, or is from a different sector than the immediate counterparty even though collateral held against the claim does not meet the definition of collateral for risk transfer. This would occur in an overnight resale agreement, collateralized by securities, with a foreign branch of a bank that is headquartered in a third country. In response to the comment, the agencies have amended the instructions to clarify that collateral held against claims that are subject to risk transfer does not need to be reported in columns 13 through 18 of Schedule C, Part II.

Fourth, the commenter requested clarification on the reporting basis for Columns 1 and 2 of Schedule L, as the agencies proposed to rename the reporting basis for these columns in Appendix A of the instructions but did not propose to change the substantive instructions. The commenter proposed to amend the instructions for these columns to state that deposits of a foreign branch are assumed to be liabilities of the branch unless they are explicitly guaranteed outside of the country where the branch is located. This represents a change from the current instructions, which refer to deposits that are redeemable elsewhere (rather than guaranteed elsewhere). The agencies consider the modification as originally proposed to be a change in name rather than a substantive alteration. The agencies note that there was no change in the instructions for Columns 1 and 2 of Schedule L from the 2019 version and the proposed amendment is out of scope for the current revision. Accordingly, the agencies have decided not to change the corresponding instructions as recommended by the commenter. However, after further consideration and in the interest of clarity, the agencies are revising the form to leave blank the ''Reporting Basis'' entry in Appendix A (rightmost column) in the row addressing Columns 1 and 2 of Schedule L (which was originally proposed to be ''Guarantor Basis''). This change provides a useful clarification because the location is that of the foreign office, not the counterparty, and thus neither Immediate-Counterparty nor Guarantor Basis is applicable. Furthermore, as established in section

II.C of the FFIEC 009 general instructions, the Immediate-Counterparty versus Guarantor Basis distinction is to be reported only for claims and not for liabilities.

Fifth, the commenter noted that the draft reporting instructions for Column 2 of the FFIEC 009a report instruct firms to report the sum of Columns 6 through 10 from Schedule C, Part I, of the FFIEC 009 report,'' which are ''Claims on Local Residents in Non-Local Currency.'' However, the proposal does not provide an indication in the heading for Column 2 of the FFIEC 009a that the data reported in the column should be limited to only claims on local residents in non-local currency, nor is there any reference in the draft instructions for the reporting of claims on local residents in local currency. The commenter recommended the agencies clarify whether the data in Column 2 should include claims on local residents in both local and non-local currencies and subsequently modify the heading for Column 2 to clearly specify what is to be captured.

The commenter also stated if the intention for new Columns 1 and 2 of the FFIEC 009a is to collect data on the total claims by the immediate counterparty and as a result should reflect the claims in both local and non-local currencies, the agencies should clarify the reporting instructions for Column 2 to reference Column 12 from Schedule C, Part I of the FFIEC 009 to incorporate claims on local residents in local currency. The agencies agree both new Columns 1 and 2 of the FFIEC 009a should reflect total claims by immediate counterparty and Column 2 should include claims that are reflected in column 12, Schedule C, Part 1 of the FFIEC 009, in addition to those reflected in columns 6 through 12. Therefore, the agencies agree with the commenter's recommendation to include a reference to Column 12 from Schedule C, Part I of the FFIEC 009 in the FFIEC 009a instructions for Column 2 and will modify the heading for Column 2 on the FFIEC 009a report form to specify what is included.

Sixth, the commenter noted that Schedule D of the FFIEC 009 collects information on the fair value of derivative contracts, and the headers for new Column 1 ''Amount of Cross-border Claims Outstanding'' and Column 2 ''Amount of Foreign Office Claims on Local Residents'' of the FFIEC 009a explicitly indicate that firms should exclude derivative products. The commenter pointed out that referencing Schedule D in the instructions for new Columns 8 through 11 of the FFIEC 009a created an inconsistency and recommended removing the references to Schedule D from the instructions of Columns 8 through 11. The agencies note that the amounts in Columns 8 through 11, which are reported on an immediate counterparty basis, correspond to the cross-sectoral aggregated amounts in Columns 1 and 2 which are not intended to include derivatives. Therefore, the agencies agree with the commenter's recommendation to remove the references to Schedule D of the FFIEC 009 and will modify the instructions accordingly.

Seventh, the commenter noted an inconsistency in the proposed FFIEC 009a instructions for Column 3 ''Amount of Cross-border Claims Outstanding After Mandated Adjustments for Transfer of Exposure (excluding derivative products)'' (existing Column 1), Column 4 ''Amount of Foreign Office Claims on Local Residents (excluding derivative products)'' (existing Column 2) and Columns 12 through 15 (existing Columns 6 through 9), which redistribute the same amounts reported in Columns 3 and 4. The commenter noted that there is a conflict because, by including references to FFIEC 009 Schedule D, the instructions imply that Columns 12 through 15 include derivative products, while derivatives are explicitly excluded from Columns 3 and 4. The commenter recommended that the agencies revise the reporting instructions for Columns 12 through 15 to remove the references to the FFIEC 009, Schedule D thereby removing derivatives from the reporting of guarantor basis claims in the sector breakdown of Columns 12 through 15. The agencies agree there is an inconsistency, Columns 3 and 4 correctly exclude derivatives, whereas Columns 12 through 15 are intended to include derivatives. Derivatives are listed in Column 5 and included in Column 6, total claims on a guarantor basis, which is the sum of Columns 3, 4, and 5. Therefore, the agencies will revise the column headers and the instructions for Columns 12 through 17 of the FFIEC 009a to reference the total in Column 6 and note derivative products are to be included. Therefore, Columns 12 through 15 will include derivatives and retain the references to Schedule D of the FFIEC 009.

Eighth, the commenter noted that, given the changes to the FFIEC 009 and the renumbering of columns, the instructions for the new Column 24 (currently Column 18) of the FFIEC 009a ''Of Which, Resale Agreements and Securities Lending (Counterparty)'' incorrectly references FFIEC 009 Schedule C, Part II, Column 16. Additionally, the commenter noted that the column header for Column 24 does not include ''Reverse Repurchase Agreements'' which is inconsistent with the column headers of Columns 17 and 18 on the FFIEC 009, Schedule C, Part II, which are ''Of Which, Resale and Reverse Repurchase Agreements and Securities Lending (Counterparty)'' and ''Of Which, Resale and Reverse Repurchase Agreements and Securities Lending (Collateral),'' respectively. Therefore, the commenter recommended that the agencies revise the reporting instructions for Column 24 of the FFIEC 009a to reference Column 17 of Schedule C, Part II of the FFIEC 009 and revise the header for Column 24 of the FFIEC 009a, to read ''Of Which, Resale and Reverse Repurchase Agreements and Securities Lending (Counterparty),'' to be consistent with the headers in the corresponding columns of the FFIEC 009. The agencies agree with the commenter and will revise the instructions and headers accordingly.

Lastly, the commenter expressed a concern that there is potentially conflicting guidance regarding CUSIP netting practices in the FFIEC 009. Specifically, the commenter noted that the agencies had provided one method for netting in a Frequently Asked Question issued in September 2015, while a different method was described in informal guidance during a 2016 regulatory reporting seminar conducted by one of the agencies. In 2019, the agencies received a related comment on whether CUSIP netting in the FFIEC 009 should follow U.S. GAAP. In response to that comment, the agencies clarified that CUSIP netting should not follow U.S. GAAP and reiterated that the current FFIEC 009 instructions (incorporating the method described in September 2015) is the correct method for CUSIP netting in the FFIEC 009.[1] The agencies continue to confirm that only the CUSIP netting method described in the FFIEC 009 instructions is appropriate.

III. Request for Comment

Public comment is requested on all aspects of this notice. Comment is also specifically invited on:

(a) Whether the information collections are necessary for the proper performance of the agencies' functions, including whether the information has practical utility;

(b) The accuracy of the agencies' estimates of the burden of the information collections, including the

[1] *See* 84 FR 47340, 47342 (September 9, 2019).

validity of the methodology and assumptions used;

(c) Ways to enhance the quality, utility, and clarity of the information to be collected;

(d) Ways to minimize the burden of information collections 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.

Comments submitted in response to this joint notice will be shared among the agencies. All comments will become a matter of public record.

Theodore J. Dowd,

Deputy Chief Counsel, Office of the Comptroller of the Currency.

Margaret McCloskey Shanks,

Deputy Secretary of the Board. Board of Governors of the Federal Reserve System. Federal Deposit Insurance Corporation.

Dated at Washington, DC, on August 4, 2022.

James P. Sheesley,

Assistant Executive Secretary.

[FR Doc. 2022–17229 Filed 8–10–22; 8:45 am]

BILLING CODE P

DEPARTMENT OF THE TREASURY

Office of the Comptroller of the Currency

Agency Information Collection Activities: Information Collection Renewal; Comment Request; Assessment of Fees

AGENCY: Office of the Comptroller of the Currency (OCC), Treasury.

ACTION: Notice and request for comment.

SUMMARY: The OCC, as part of its continuing effort to reduce paperwork and respondent burden, invites comment on a continuing information collection as required by the Paperwork Reduction Act of 1995 (PRA). In accordance with the requirements of the PRA, the OCC may not conduct or sponsor, and the respondent is not required to respond to, an information collection unless it displays a currently valid Office of Management and Budget (OMB) control number. The OCC is soliciting comment concerning the renewal of its information collection titled, ''Assessment of Fees.''

DATES: You should submit written comments by October 11, 2022.

ADDRESSES: Commenters are encouraged to submit comments by email, if possible. You may submit comments by any of the following methods:

- *Email: prainfo@occ.treas.gov.*
- *Mail:* Chief Counsel's Office, Attention: Comment Processing, Office of the Comptroller of the Currency, Attention: 1557–0223, 400 7th Street SW, Suite 3E–218, Washington, DC 20219.
- *Hand Delivery/Courier:* 400 7th Street SW, Suite 3E–218, Washington, DC 20219.
- *Fax:* (571) 465–4326.

Instructions: You must include ''OCC'' as the agency name and ''1557–0223'' in your comment. In general, the OCC will publish comments on *www.reginfo.gov* without change, including any business or personal information provided, such as name and address information, email addresses, or phone numbers. Comments received, including attachments and other supporting materials, are part of the public record and subject to public disclosure. Do not include any information in your comment or supporting materials that you consider confidential or inappropriate for public disclosure.

Following the close of this notice's 60-day comment period, the OCC will publish a second notice with a 30-day comment period. You may review comments and other related materials that pertain to this information collection beginning on the date of publication of the second notice for this collection by the method set forth in the next bullet.

- *Viewing Comments Electronically:* Go to *www.reginfo.gov.* Hover over the ''Information Collection Review'' drop down menu. Click on ''Information Collection Review.'' From the ''Currently under Review'' drop-down menu, select ''Department of Treasury'' and then click ''submit.'' This information collection can be located by searching by OMB control number ''1557–0223'' or ''Assessment of Fees.'' Upon finding the appropriate information collection, click on the related ''ICR Reference Number.'' On the next screen, select ''View Supporting Statement and Other Documents'' and then click on the link to any comment listed at the bottom of the screen.
- For assistance in navigating *www.reginfo.gov,* please contact the Regulatory Information Service Center at (202) 482–7340.

FOR FURTHER INFORMATION CONTACT: Shaquita Merritt, OCC Clearance Officer, (202) 649–5490, Chief Counsel's Office, Office of the Comptroller of the Currency, 400 7th Street SW, Washington, DC 20219. If you are deaf, hard of hearing, or have a speech disability, please dial 7–1–1 to access telecommunications relay services.

SUPPLEMENTARY INFORMATION: Under the PRA (44 U.S.C. 3501 *et seq.*), Federal agencies must obtain approval from the OMB for each collection of information that they conduct or sponsor. ''Collection of information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) to include agency requests or requirements that members of the public submit reports, keep records, and/or provide information to a third party. Section 3506(c)(2)(A) of title 44 generally requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, the OCC is publishing notice of the proposed collection of information set forth in this document.

The OCC is proposing to extend OMB approval of the following information collection:

Title: Assessment of Fees.

OMB Control No.: 1557–0223.

Affected Public: Business or other for-profit.

Type of Review: Regular review.

Abstract: The OCC is requesting comment on its proposed extension, without change, of the information collection titled, ''Assessment of Fees.'' The OCC is authorized by the National Bank Act (for national banks and Federal branches and agencies) and the Home Owners Loan Act (for Federal savings associations) to collect assessments, fees, and other charges as necessary or appropriate to carry out the responsibilities of the OCC. 12 U.S.C. 16, 481, 482 and 1467. The OCC requires independent credit card national banks and independent credit card Federal savings associations (collectively, independent credit card institutions) to pay an additional assessment based on receivables attributable to accounts owned by the national bank or Federal savings association. 12 CFR 8.2(c). Independent credit card institutions are national banks or Federal savings associations that engage primarily in credit card operations and are not affiliated with a full-service national bank or full-service Federal savings association. 12 CFR 8.2(c)(3)(vi) and (vii). Under 12 CFR 8.2(c)(2), the OCC also has the authority to assess an independent credit card institution that is affiliated with a full-service national bank or full-service Federal savings association if the OCC concludes that the affiliation is intended to evade the requirements of 12 CFR part 8.

The OCC requires independent credit card institutions to report receivables attributable data to the OCC semiannually or at a time specified by the OCC. 12 CFR 8.2(c)(4). ''Receivables attributable'' are the total amount of outstanding balances due on credit card accounts owned by independent credit card institutions (the receivables attributable to those accounts) on the last day of an assessment period minus receivables retained on the national bank or Federal savings association's balance sheet as of that day. 12 CFR 8.2(c)(3)(viii). The OCC uses the information to calculate the assessment for each national bank and Federal savings association and adjust the assessment rate for independent credit card institutions over time.

Estimated Number of Respondents: 7.

Estimated Total Annual Burden: 14 hours.

Comments submitted in response to this notice will be summarized and 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 OCC, including whether the information has practical utility;

(b) The accuracy of the OCC's estimate of the information collection burden;

(c) Ways to enhance the quality, utility, and clarity of the information to be collected;

(d) Ways to minimize the burden of the collection 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.

Patrick T. Tierney,

Assistant Director, Bank Advisory, Office of the Comptroller of the Currency.

[FR Doc. 2022–17276 Filed 8–10–22; 8:45 am]

BILLING CODE 4810–33–P

DEPARTMENT OF THE TREASURY

Office of Foreign Assets Control

Notice of OFAC Sanctions Action

AGENCY: Office of Foreign Assets Control, Treasury.

ACTION: Notice.

SUMMARY: The U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) is publishing the name of one entity that has been placed on OFAC's Specially Designated Nationals and Blocked Persons List based on OFAC's determination that one or more applicable legal criteria were satisfied. All property and interests in property subject to U.S. jurisdiction of this entity is blocked, and U.S. persons are generally prohibited from engaging in transactions with it.

DATES: See Supplementary Information section for effective date(s).

FOR FURTHER INFORMATION CONTACT: OFAC: Andrea M. Gacki, Director, tel.: 202–622–2490; Associate Director for Global Targeting, tel.: 202–622–2420; Assistant Director for Licensing, tel.: 202–622–2480; Assistant Director for Regulatory Affairs, tel.: 202–622–4855; or the Assistant Director for Sanctions Compliance & Evaluation, tel.: 202–622–2490.

SUPPLEMENTARY INFORMATION:

Electronic Availability

The Specially Designated Nationals and Blocked Persons List and additional information concerning OFAC sanctions programs are available on OFAC's website (*https://www.treasury.gov/ofac*).

Notice of OFAC Action

On August 8, 2022, OFAC determined that the property and interests in property subject to U.S. jurisdiction of the following entity is blocked under the relevant sanctions authority listed below.

Entity

1. TORNADO CASH (a.k.a. TORNADO CASH CLASSIC; a.k.a. TORNADO CASH NOVA); website *tornado.cash*; Digital Currency Address—ETH 0x8589427373D6D 84E98730D7795D8f6f8731FDA16; alt. Digital Currency Address—ETH 0x722122dF12D 4e14e13Ac3b6895a86e84145b6967; alt. Digital Currency Address—ETH 0xDD4c48C0B24039969 fC16D1cdF626eaB821d3384; alt. Digital Currency Address—ETH 0xd90e2f925DA726b50C4Ed8D 0Fb90Ad053324F31b; alt. Digital Currency Address—ETH 0xd96f2B1c14Db8458374d9Aca 76E26c3D18364307; alt. Digital Currency Address—ETH 0x4736dCf1b7A3d580672C cE6E7c65cd5cc9cFBa9D; alt. Digital Currency Address—ETH 0xD4B88Df4D29F5CedD6857 912842cff3b20C8Cfa3; alt. Digital Currency Address—ETH 0x910Cbd523D972eb0a6f4 cAe4618aD62622b39DbF; alt. Digital Currency Address—ETH 0xA160cdAB225685dA1d 56aa342Ad8841c3b53f291; alt. Digital Currency Address—ETH 0xFD8610d20aA15b7B2E3Be39 B396a1bC3516c7144; alt.Digital Currency Address—ETH 0xF60dD140cFf0706bAE9Cd 734Ac3ae76AD9eBC32A; alt. Digital Currency Address—ETH 0x22aaA7720ddd5388A3 c0A3333430953C68f1849b; alt. Digital Currency Address—ETH 0xBA214C1c1928a32Bffe 790263E38B4Af9bFCD659; alt. Digital Currency Address—ETH 0xb1C8094B234DcE6e03f10 a5b673c1d8C69739A00; alt. Digital Currency Address—ETH 0x527653eA119F3E6a1F5BD 18fbF4714081D7B31ce; alt. Digital Currency Address—ETH 0x58E8dCC13BE9780fC42E8723 D8EaD4CF46943dF2; alt. Digital Currency Address—ETH 0xD691F27f38B395864Ea86 CfC7253969B409c362d; alt. Digital Currency Address—ETH 0xaEaaC358560e11f52454 D997AAFF2c5731B6f8a6; alt. Digital Currency Address—ETH 0x1356c899D8C9467C7f71 C195612F8A395aBf2f0a; alt. Digital Currency Address—ETH 0xA60C772958a3eD56c1F15 dD055bA37AC8e523a0D; alt. Digital Currency Address—ETH 0x169AD27A470D064DEDE56 a2D3ff727986b15D52B; alt. Digital Currency Address—ETH 0x0836222F2B2B24A3F36f98668 Ed8F0B38D1a872f; alt. Digital Currency Address—ETH 0xF67721A2D8F736E75a49FdD 7FAd2e31D8676542a; alt. Digital Currency Address—ETH 0x9AD122c22B14202B4490eDAf 288FDb3C7cb3ff5E; alt. Digital Currency Address—ETH 0x905b63Fff465B9fFBF41DeA 908CEb12478ec7601; alt. Digital Currency Address—ETH 0x07687e702b410Fa43f4cB4Af7 FA097918ffD2730; alt. Digital Currency Address—ETH 0x94A1B5CdB22c43faab4AbEb5c 74999895464Ddaf; alt. Digital Currency Address—ETH 0xb541fc07bC7619fD4062A54d 96268525cBC6FfEF; alt. Digital Currency Address—ETH 0x12D66f87A04A9E220743712cE 6d9bB1B5616B8Fc; alt. Digital Currency Address—ETH 0x47CE0C6eD5B0Ce3d3A51fdb1 C52DC66a7c3c2936; alt. Digital Currency Address—ETH 0x23773E65ed146A459791799d 01336DB287f25334; alt. Digital Currency Address—ETH 0xD21be7248e0197Ee08E0c20D4 a96DEBdaC3D20Af; alt. Digital Currency Address—ETH 0x610B717796ad172B316836AC95 a2ffad065CeaB4; alt. Digital Currency Address—ETH 0x178169B423a011fff22B9e3F3 abeA13414dDD0F1; alt. Digital Currency Address—ETH 0xbB93e510BbCD0B7beb5A853875 f9eC60275CF498; alt. Digital Currency Address—ETH 0x2717c5e28cf931547B621a5 dddb772Ab6A35B701; alt. Digital Currency Address—ETH 0x03893a7c7463AE47D46bc7f 091665f1893656003; alt. Digital Currency Address—ETH 0xCa0840578f57fE71599D29375 e16783424023357; alt. Digital Currency

Address—ETH 0x58E8dCC13BE9780fC42E8723D8 EaD4CF46943dF2; Organization Established Date 2019; Digital Currency Address—USDC 0x8589427373D6D84E98730D 7795D8f6f8731FDA16; alt. Digital Currency Address—USDC 0x722122dF12D4e14e13Ac3b 6895a86e84145b6967; alt. Digital Currency Address—USDC 0xDD4c48C0B24039969fC16 D1cdF626eaB821d3384; alt. Digital Currency Address—USDC 0xd90e2f925DA726b50C4Ed8 D0Fb90Ad053324F31b; alt. Digital Currency Address—USDC 0xd96f2B1c14Db8458374d9 Aca76E26c3D18364307; alt. Digital Currency Address—USDC 0x4736dCf1b7A3d580672CcE 6E7c65cd5cc9cFBa9D [CYBER2].

Designated pursuant to section l(a)(iii)(B) of Executive Order 13694 of April 1, 2015, ''Blocking the Property of Certain Persons Engaging in Significant Malicious Cyber-Enabled Activities'', 80 FR 18077, 3 CFR, 2015 Comp., p. 297, as amended by Executive Order 13757 of December 28, 2016, ''Taking Additional Steps to Address the National Emergency With Respect to Significant Malicious Cyber-Enabled Activities'', 82 FR 1, 3 CFR, 2016 Comp., p. 659 (E.O. 13694, as amended) for having materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of, an activity described in section 1(a)(ii) of E.O. 13694, as amended.

Dated: August 8, 2022.

Andrea M. Gacki,

Director, Office of Foreign Assets Control, U.S. Department of the Treasury.

[FR Doc. 2022–17272 Filed 8–10–22; 8:45 am]

BILLING CODE 4810–AL–P

DEPARTMENT OF VETERANS AFFAIRS

Advisory Committee on Women Veterans, Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under the Federal Advisory Committee Act that the Advisory Committee on Women Veterans will conduct a virtual site visit on August 29–September 1, 2022, with the Veterans Integrated Service Network (VISN) 8: VA Sunshine Healthcare Network and the VA Caribbean Health Care System in San Juan, PR.

Date	Time	Location
August 29, 2022	10:00 a.m.–2:30 p.m. (ET)	See Webex link and call-in information below.
August 30, 2022	10:00 a.m.–2:30 p.m. (ET)	See Webex link and call-in information below.
August 31, 2022	10:00 a.m.–2:00 p.m. (ET)	See Webex link and call-in information below.
September 1, 2022	10:00 a.m.–11:00 a.m. (ET)	See Webex link and call-in information below.

The meeting sessions are open to the public.

The purpose of the Committee is to advise the Secretary of Veterans Affairs regarding the needs of women Veterans with respect to health care, rehabilitation, compensation, outreach and other programs and activities administered by VA designed to meet such needs. The Committee makes recommendations to the Secretary regarding such programs and activities.

On Monday, August 29, the agenda includes overviews of: VISN 8's facilities and programs; an overview of VISN 8 services for women Veterans; and an overview of VA Caribbean Health Care System facilities, programs and community partners.

On Tuesday, August 30, the agenda includes a continuation of briefings on VA Caribbean Health Care System's programs and services for women Veterans. On Wednesday, August 31, the agenda includes briefings on: Veteran Experience Committee; community engagement; an overview of San Juan Regional Office's business lines and initiatives; and an overview of Puerto Rico National Cemetery's services and programs.

On Thursday, September 1, the committee will conduct an out-briefing with leadership from VISN 8, VA Caribbean Health Care System, San Juan Regional Office and Puerto Rico National Cemetery. From 11:30 a.m.–12:30 p.m., the Committee will observe a women Veterans town hall meeting hosted by the VA Caribbean Health Care System. The meeting sessions and town hall meeting are open to the public. Information about the town hall meeting will be provided to the public by the VA Caribbean Health Care System.

No time will be allocated at this meeting for receiving oral presentations from the public. Interested parties should provide written comments for review by the Committee to Ms. Shannon L. Middleton at *00W@mail.va.gov* no later than August 20. Any member of the public who wishes to participate in the virtual site visit may use the following WebEx link: *https://veteransaffairs.webex.com/veteransaffairs/j.php?MTID=mde17883b2f3b501d27cddbde89b7e3cc;* meeting number: 2762 754 0002; password: KJudtUR@285. Participants can also join by phone (toll free) at 1–404–397–1596; access code: 2762 754 0002.

Dated: August 8, 2022.

Jelessa M. Burney,

Federal Advisory Committee Management Officer.

[FR Doc. 2022–17283 Filed 8–10–22; 8:45 am]

BILLING CODE 8320–01–P

FEDERAL REGISTER

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Part II

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Part 218

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to the U.S. Navy Training Activities in the Gulf of Alaska Study Area; Proposed Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 218

[Docket No. 220726–0163]

RIN 0648–BK46

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to the U.S. Navy Training Activities in the Gulf of Alaska 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) to take marine mammals incidental to training activities conducted in the Gulf of Alaska (GOA) Study Area (hereafter referred to as the GOA Study Area). Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue regulations and a subsequent Letter of Authorization (LOA) to the Navy to incidentally take marine mammals during the specified activities. NMFS will consider public comments prior to issuing any final rule and making final decisions on the issuance of the requested LOA. Agency responses to public comments will be provided in the notice of the final decision. The Navy's activities qualify as military readiness activities pursuant to the MMPA, as amended by the National Defense Authorization Act for Fiscal Year 2004 (2004 NDAA).

DATES: Comments and information must be received no later than September 26, 2022.

ADDRESSES: Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter NOAA–NMFS–2022–0060 in the Search box. Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.

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), 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.

A copy of the Navy's application and other supporting documents and documents cited herein may be obtained online at: *https://www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-training-activities-gulf-alaska-temporary-maritime-0.* In case of problems accessing these documents, please use the contact listed here (see **FOR FURTHER INFORMATION CONTACT**).

FOR FURTHER INFORMATION CONTACT: Leah Davis, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Purpose of Regulatory Action

These proposed regulations, issued under the authority of the MMPA (16 U.S.C. 1361 *et seq.*), would provide the framework for authorizing the take of marine mammals incidental to the Navy's training activities (which qualify as military readiness activities), including the use of sonar and other transducers, and in-air detonations at or near the surface (within 10 m above the water surface) in the GOA Study Area. The GOA Study Area is comprised of three areas: the Temporary Maritime Activities Area (TMAA), a warning area, and the Western Maneuver Area (WMA) (see Figure 1). The TMAA and WMA are temporary areas established within the GOA for ships, submarines, and aircraft to conduct training activities. The warning area overlaps and extends slightly beyond the northern corner of the TMAA. The WMA is located south and west of the TMAA and provides additional surface, sub-surface, and airspace in which to maneuver in support of activities occurring within the TMAA. The use of sonar and other transducers, and explosives would not occur within the WMA.

NMFS received an application from the Navy requesting 7-year regulations and an authorization to incidentally take individuals of multiple species of marine mammals (''Navy's rulemaking/LOA application'' or ''Navy's application''). Take is anticipated to occur by Level A harassment and Level B harassment incidental to the Navy's training activities. No lethal take is anticipated or proposed for authorization.

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA direct the Secretary of Commerce (as delegated to NMFS) 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 proposed or, if the taking is limited to harassment, the public is provided with notice of the proposed incidental take authorization and provided the opportunity to review and submit comments.

An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stocks and will not have an unmitigable adverse impact on the availability of the species or stocks for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other means of effecting the least practicable adverse impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stocks for taking for certain subsistence uses (referred to in this rule as ''mitigation measures''); and requirements pertaining to the monitoring and reporting of such takings. The MMPA defines ''take'' to mean to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal. The Preliminary Analysis and Negligible Impact Determination section below discusses the definition of ''negligible impact.''

The NDAA for Fiscal Year 2004 (2004 NDAA) (Pub. L. 108–136) amended section 101(a)(5) of the MMPA to remove the ''small numbers'' and ''specified geographical region'' provisions indicated above and amended the definition of ''harassment'' as applied to a ''military readiness activity.'' The definition of harassment for military readiness activities (Section 3(18)(B) of the MMPA) is (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). In addition, the 2004 NDAA amended the MMPA as it relates to military readiness activities such that the least practicable adverse impact analysis shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

More recently, Section 316 of the NDAA for Fiscal Year 2019 (2019 NDAA) (Pub. L. 115–232), signed on August 13, 2018, amended the MMPA to allow incidental take rules for military readiness activities under section 101(a)(5)(A) to be issued for up to 7 years. Prior to this amendment, all incidental take rules under section 101(a)(5)(A) were limited to 5 years.

Summary and Background of Request

On October 9, 2020, NMFS received an adequate and complete application from the Navy requesting authorization for take of marine mammals, by Level A harassment and Level B harassment, incidental to training from the use of active sonar and other transducers and explosives (in-air, occurring at or above the water surface) in the TMAA over a 7-year period beginning when the current authorization expires. On March 12, 2021, the Navy submitted an updated application that provided revisions to the Northern fur seal take estimate and incorporated additional best available science. In August 2021, the Navy communicated to NMFS that it was considering an expansion of the GOA Study Area and an expansion of the Portlock Bank Mitigation Area proposed in its previous applications. On February 2, 2022, the Navy submitted a second updated application that described the addition of the WMA to the GOA Study Area (which previously just consisted of the TMAA) and the replacement of the Portlock Bank Mitigation Area with the Continental Shelf and Slope Mitigation Area. The Navy is not planning to conduct any testing activities.

On January 8, 2021 (86 FR 1483), we published a notice of receipt (NOR) of application in the **Federal Register**, requesting comments and information related to the Navy's request for 30 days. We received one comment on the NOR that was non-substantive in nature.

The following types of training, which are classified as military readiness activities pursuant to the MMPA, as amended by the 2004 NDAA, would be covered under the regulations and LOA (if issued): surface warfare (detonations at or above the water surface) and anti-submarine warfare (sonar and other transducers). The Navy is also conducting Air Warfare, Electronic Warfare, Naval Special Warfare, Strike Warfare, and Support Operations, but these activities do not involve sonar and other transducers, detonations at or above the water surface, or any other stressors that could result in the take of marine mammals. (See the 2020 GOA Draft SEIS/OEIS for more detail on those activities). The activities would not include in-water explosives, pile driving/removal, or use of air guns.

This would be the third time NMFS has promulgated incidental take regulations pursuant to the MMPA relating to similar military readiness activities in the GOA, following those effective beginning May 4, 2011 (76 FR 25479; May 4, 2011) and April 26, 2017 (82 FR 19530; April 27, 2017).

The Navy's mission is to organize, train, equip, and maintain combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. This mission is mandated by Federal law (10 U.S.C. 8062), which requires the readiness of the naval forces of the United States. The Navy executes this responsibility by establishing and executing training programs, including at-sea training and exercises, and ensuring naval forces have access to the ranges, operating areas (OPAREA), and airspace needed to develop and maintain skills for conducting naval activities.

The Navy has conducted training activities in the TMAA portion of the GOA Study Area since the 1990s. Since the 1990s, the Department of Defense has conducted a major joint training exercise in Alaska and off the Alaskan coast that involves the Departments of the Navy, Army, Air Force, and Coast Guard participants reporting to a unified or joint commander who coordinates the activities. These activities are planned to demonstrate and evaluate the ability of the services to engage in a conflict and successfully carry out plans in response to a threat to national security. The Navy's planned activities for the period of this proposed rule would be a continuation of the types and level of training activities that have been ongoing for more than a decade. While the specified activities have not changed, there are changes in the platforms and systems used in those activities, as well as changes in the bins (source classifications) used to analyze the activities. (For example, two new sonar bins were added (MF12 and ASW1) and another bin was eliminated (HF6). This was due to changes in platforms and systems.) Further, the Navy expanded the GOA Study Area to include the WMA, though the vast majority of the training activities would still occur only in the TMAA.

The Navy's rulemaking/LOA application reflects the most up-to-date compilation of training activities deemed necessary by senior Navy leadership to accomplish military readiness requirements. The types and numbers of activities included in the proposed rule account for fluctuations in training in order to meet evolving or emergent military readiness requirements. These proposed regulations would become effective in December of 2022 and would cover training activities that would occur for a 7-year period following the expiration of the current MMPA authorization for the GOA, which expired on April 26, 2022.

Description of the Specified Activity

The Navy requests authorization to take marine mammals incidental to conducting training activities. The Navy has determined that acoustic and explosives stressors are most likely to result in impacts on marine mammals that could rise to the level of harassment, and NMFS concurs with this determination. Detailed descriptions of these activities are provided in Chapter 2 of the 2020 GOA Draft Supplemental Environmental Impact Statement (SEIS)/Overseas EIS (OEIS) (2020 GOA DSEIS/OEIS) (*https://www.goaeis.com/*) and in the Navy's rulemaking/LOA application (*https://www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-training-activities-gulf-alaska-temporary-maritime-0*) and are summarized here.

Dates and Duration

Training activities would be conducted intermittently in the GOA Study Area over a maximum time period of up to 21 consecutive days annually from April to October to support a major joint training exercise in Alaska and off the Alaskan coast that involves the Departments of the Navy, Army, Air Force, and Coast Guard. The participants report to a unified or joint commander who coordinates the activities planned to demonstrate and evaluate the ability of the services to engage in a conflict and carry out plans in response to a threat to national security. The specified activities would occur over a maximum time period of up to 21 consecutive days each year during the 7-year period of validity of the regulations. The proposed number of training activities are described in the Detailed Description of Proposed Activities section (Table 3) of this proposed rule.

Geographical Region

The GOA Study Area (see Figure 1 below and Figure ES–1 of the 2022 Supplement to the 2020 GOA DSEIS/OEIS) is entirely at sea and is comprised of the TMAA and a warning area in the Gulf of Alaska, and the WMA. The term ''at-sea'' refers to training activities in the Study Area (both the TMAA and WMA) that occur (1) on the ocean surface, (2) beneath the ocean surface, and (3) in the air above the ocean surface. Navy training activities occurring on or over the land outside the GOA Study Area are not included in this proposed rule, and are covered under separate environmental documentation prepared by the U.S. Air Force and the U.S. Army. As depicted in Figure 1 of this proposed rule, the TMAA is a polygon roughly resembling a rectangle oriented from northwest to southeast, approximately 300 nmi (556 km) in length by 150 nmi (278 km) in width, located south of Montague Island and east of Kodiak Island. The GOA Study Area boundary was intentionally designed to avoid ESA-designated Steller sea lion critical habitat. The WMA is located south and west of the TMAA, and provides an additional 185,806 nmi^2 of surface, sub-surface, and airspace training to support activities occurring within the TMAA (Figure 1). The boundary of the WMA follows the bottom of the slope at the 4,000 m contour line, and was configured to avoid overlap and impacts to ESA-designated critical habitat, biologically important areas (BIAs), migration routes, and primary fishing grounds. The WMA provides additional airspace and sea space for aircraft and vessels to maneuver during training activities for increased training complexity. The TMAA and WMA are temporary areas established within the GOA for ships, submarines, and aircraft to conduct training activities.

Additional detail can be found in Chapter 2 of the Navy's rulemaking/LOA application.

BILLING CODE 3510–22–P

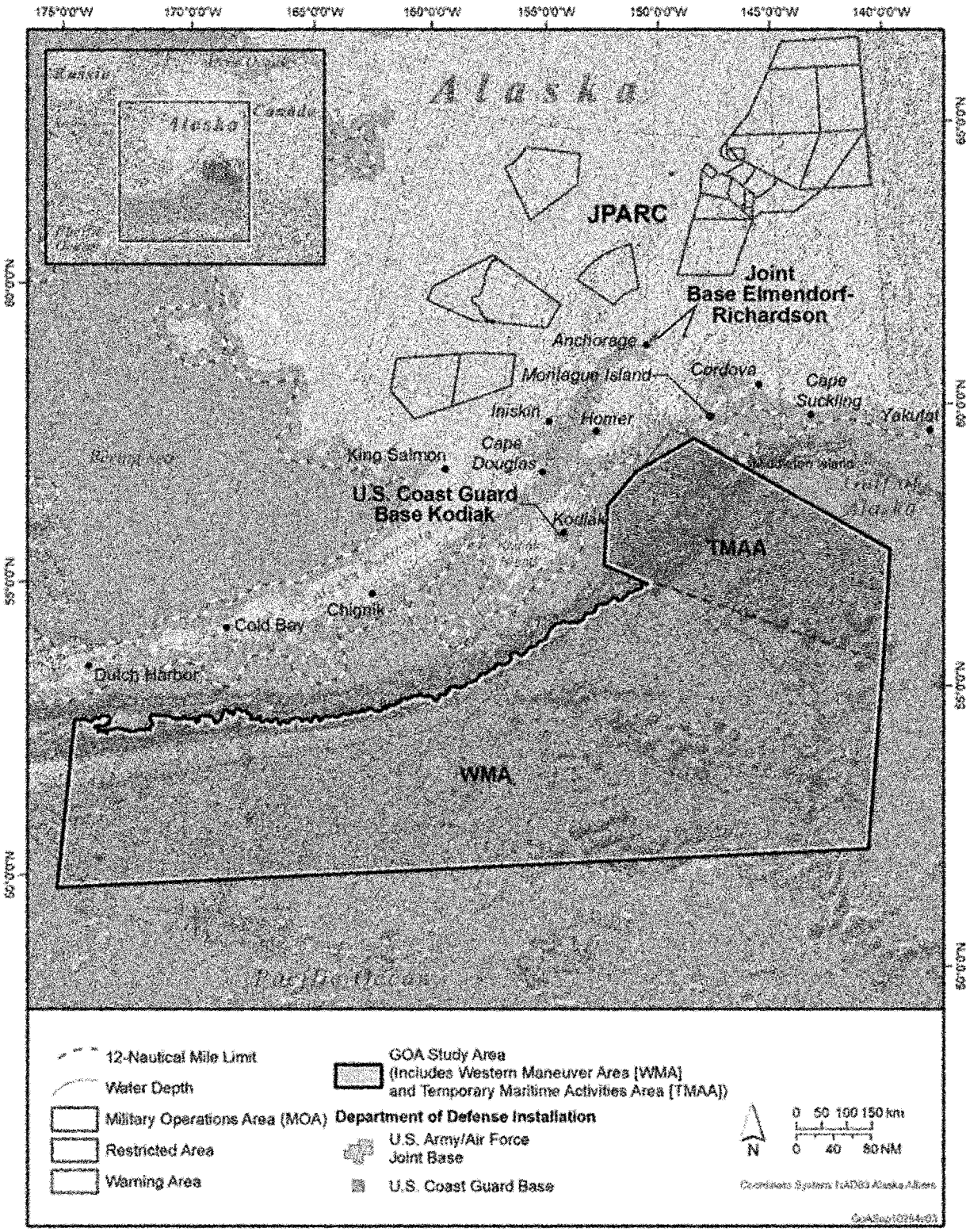

Figure 1--Gulf of Alaska Study Area. (A color version of this map can be found at *https://www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-training-activities-gulf-alaska-temporary-maritime-0*.)

BILLING CODE 3510–22–C

Primary Mission Areas

The Navy categorizes many of its training activities into functional warfare areas called primary mission areas. The Navy's planned activities for the GOA Study Area generally fall into the following six primary mission areas: Air Warfare; Surface Warfare; Anti-Submarine Warfare; Electronic Warfare; Naval Special Warfare; and Strike Warfare. Most activities conducted in the GOA are categorized under one of these primary mission areas; activities that do not fall within one of these areas are listed as ''support operations'' or ''other training activities.'' Each warfare community (aviation, surface, and subsurface) may train in some or all of these primary mission areas. A description of the sonar, munitions, targets, systems, and other materials used during training activities within these primary mission areas is provided in Appendix A (*Navy Activities Descriptions*) of the 2020 GOA DSEIS/OEIS and section ES.2.2 (*Proposed Activities in the Western Maneuver Area*) of the 2022 Supplement to the 2020 GOA DSEIS/OEIS.

The Navy describes and analyzes the effects of its training activities within the 2020 GOA DSEIS/OEIS and 2022 Supplement to the 2020 GOA DSEIS/OEIS. In its assessment, the Navy concluded that of the activities to be conducted within the GOA Study Area, sonar use and in-air explosives occurring at or above the water surface were the stressors resulting in impacts on marine mammals that could rise to the level of harassment as defined under the MMPA. (The Navy is not proposing to conduct any activities that use in-water or underwater explosives.) Further, these activities are limited to the TMAA. No activities involving sonar use or explosives would occur in the WMA or the portion of the warning area that extends beyond the TMAA. Therefore, the Navy's rulemaking/LOA application provides the Navy's assessment of potential effects from sonar use and explosives occurring at or above the water surface in terms of the various warfare mission areas they are associated with. Those mission areas include the following:

- surface warfare (in-air detonations at or above the water surface); [1] and
- anti-submarine warfare (sonar and other transducers).

The Navy's activities in Air Warfare, Electronic Warfare, Naval Special Warfare, Strike Warfare, Support Operations, and Other Training Activities do not involve sonar and other transducers, detonations at or near the surface, or any other stressors that could result in harassment, serious injury, or mortality of marine mammals. Therefore, the activities in these warfare areas are not discussed further in this proposed rule, but are analyzed fully in the 2020 GOA DSEIS/OEIS and 2022 Supplement to the 2020 GOA DSEIS/OEIS. The specific acoustic sources analyzed in this proposed rule are contained in the 2020 GOA DSEIS/OEIS and are presented in the following sections based on the primary mission areas.

Surface Warfare

The mission of surface warfare (named anti-surface warfare in the 2011 GOA Final Environmental Impact Statement (FEIS)/Overseas Environmental Impact Statement (OEIS) and 2016 GOA Final Supplemental Environmental Impact Statement (FSEIS)/OEIS, but since changed by the Navy to ''Surface Warfare'') is to obtain control of sea space from which naval forces may operate, which entails offensive action against surface targets while also defending against enemy forces. In surface warfare, aircraft use guns, air-launched cruise missiles, or other precision-guided munitions; ships employ naval guns and surface-to-surface missiles; and submarines attack surface ships using anti-ship cruise missiles.

Anti-Submarine Warfare

The mission of anti-submarine warfare is to locate, neutralize, and defeat hostile submarine forces that threaten Navy surface forces. Anti-submarine warfare can involve various assets such as aircraft, ships, and submarines which all search for hostile submarines. These forces operate together or independently to gain early warning and detection, and to localize, track, target, and attack submarine threats.

Anti-submarine warfare training addresses basic skills such as detecting and classifying submarines, as well as evaluating sounds to distinguish between enemy submarines and friendly submarines, ships, and marine life. These integrated anti-submarine warfare training exercises are conducted in coordinated, at-sea training events involving submarines, ships, and aircraft.

Overview of the Major Training Exercise Within the GOA Study Area

The training activities in the GOA Study Area are considered to be a major training exercise (MTE). A MTE, for purposes of this rulemaking, is comprised of several unit-level activities conducted by several units operating together, commanded and controlled by a single Commander, and potentially generating more than 100 hours of active sonar. These exercises typically employ an exercise scenario developed to train and evaluate the exercise participants in tactical and operational tasks. In a MTE, most of the activities being directed and coordinated by the Commander in charge of the exercise are identical in nature to the activities conducted during individual, crew, and smaller unit-level training events. In a MTE, however, these disparate training tasks are conducted in concert, rather than in isolation. At most, only one MTE would occur in the GOA Study Area per year (over a maximum of 21 days).

Description of Stressors

The Navy uses a variety of sensors, platforms, weapons, and other devices, including ones used to ensure the safety of Sailors and Marines, to meet its mission. Training with these systems may introduce sound and energy into the environment. The proposed training activities were evaluated to identify specific components that could act as stressors by having direct or indirect impacts on the environment. This analysis included identification of the spatial variation of the identified stressors. The following subsections describe the acoustic and explosive stressors for marine mammals and their habitat (including prey species) within the GOA Study Area. Each description contains a list of activities that may generate the stressor. Stressor/resource interactions that were determined to have de minimis or no impacts (*e.g.,* vessel noise, aircraft noise, weapons noise, and high-altitude (greater than 10 m above the water surface) explosions) were not carried forward for analysis in the Navy's rulemaking/LOA application. The Navy fully considered the possibility of vessel strike, conducted an analysis, and determined that requesting take of marine mammals by vessel strike was not warranted. Although the Navy did not request take for vessel strike, NMFS also fully analyzed the potential for vessel strike of marine mammals as part of this rulemaking. Therefore, this stressor is discussed in detail below. No Sinking Exercise (SINKEX) events are proposed in the GOA Study Area for this rulemaking, nor is establishment and use of a Portable Undersea Tracking Range (PUTR) proposed. NMFS reviewed the Navy's analysis and conclusions on de minimis and no-impact sources, included in Section 3.8.3 (*Environmental Consequences*) of

[1] Defined herein as being within 10 meters of the ocean surface.

the 2020 GOA DSEIS/OEIS and finds them complete and supportable.

Acoustic Stressors

Acoustic stressors include acoustic signals emitted into the water for a specific purpose, such as sonar, other transducers (devices that convert energy from one form to another—in this case, into sound waves), incidental sources of broadband sound produced as a byproduct of vessel movement, aircraft transits, and use of weapons or other deployed objects. Explosives also produce broadband sound but are characterized separately from other acoustic sources due to their unique hazardous characteristics. Characteristics of each of these sound sources are described in the following sections.

In order to better organize and facilitate the analysis of approximately 300 sources of underwater sound used by the Navy, including sonar and other transducers and explosives, a series of source classifications, or source bins, were developed. The source classification bins do not include the broadband noise produced incidental to vessel movement, aircraft transits, and weapons firing. Noise produced from vessel movement, aircraft transits, and use of weapons or other deployed objects is not carried forward because those activities were found to have de minimis or no impacts, as described above.

The use of source classification bins provides the following benefits:

- Provides the ability for new sensors or munitions to be covered under existing authorizations, as long as those sources fall within the parameters of a ''bin;''
- Improves efficiency of source utilization data collection and reporting requirements anticipated under the MMPA authorizations;
- Ensures a precautionary approach to all impact estimates, as all sources within a given class are modeled as the most impactful source (highest source level, longest duty cycle, or largest net explosive weight) within that bin;
- Allows analyses to be conducted in a more efficient manner, without any compromise of analytical results; and
- Provides a framework to support the reallocation of source usage (hours/explosives) between different source bins, as long as the total numbers of 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.

Sonar and Other Transducers

Active sonar and other transducers emit non-impulsive sound waves into the water to detect objects, navigate safely, and communicate. Passive sonars differ from active sound sources in that they do not emit acoustic signals; rather, they only receive acoustic information about the environment, or listen. In this proposed rule, the terms sonar and other transducers will be used to indicate active sound sources unless otherwise specified.

The Navy employs a variety of sonars and other transducers to obtain and transmit information about the undersea environment. Some examples are mid-frequency hull-mounted sonars used to find and track enemy submarines; high-frequency small object detection sonars used to detect mines; high-frequency underwater modems used to transfer data over short ranges; and extremely high-frequency (greater than 200 kilohertz (kHz)) doppler sonars used for navigation, like those used on commercial and private vessels. The characteristics of these sonars and other transducers, such as source level, beam width, directivity, and frequency, depend on the purpose of the source. Higher frequencies can carry more information or provide more information about objects off which they reflect, but attenuate more rapidly. Lower frequencies attenuate less rapidly, so they may detect objects over a longer distance, but with less detail.

Propagation of sound produced underwater is highly dependent on environmental characteristics such as bathymetry, bottom type, water depth, temperature, and salinity. The sound received at a particular location will be different than near the source due to the interaction of many factors, including propagation loss; how the sound is reflected, refracted, or scattered; the potential for reverberation; and interference due to multi-path propagation. In addition, absorption greatly affects the distance over which higher-frequency sounds propagate. The effects of these factors are explained in Appendix B (*Acoustic and Explosive Concepts*) of the 2020 GOA DSEIS/OEIS. Because of the complexity of analyzing sound propagation in the ocean environment, the Navy relies on acoustic models in its environmental analyses that consider sound source characteristics and varying ocean conditions across the TMAA. As noted above, the Navy does not propose to use sonar and other transducers within the WMA.

The sound sources and platforms typically used in naval activities analyzed in the Navy's rulemaking/LOA application are described in Appendix A (*Navy Activities Descriptions*) of the 2020 GOA DSEIS/OEIS. Sonars and other transducers used to obtain and transmit information underwater during Navy training activities generally fall into several categories of use described below.

Anti-Submarine Warfare

Sonar used during anti-submarine warfare would impart the greatest amount of acoustic energy of any category of sonar and other transducers analyzed in this proposed rule. Types of sonars used to detect potential enemy vessels include hull-mounted, towed, line array, sonobuoy, and helicopter dipping sonars. In addition, acoustic targets and decoys (countermeasures) may be deployed to emulate the sound signatures of vessels or repeat received signals.

Most anti-submarine warfare sonars are mid-frequency (1–10 kHz) because mid-frequency sound balances sufficient resolution to identify targets with distance over which threats can be identified. However, some sources may use higher or lower frequencies. Duty cycles can vary widely, from rarely used to continuously active. For example, anti-submarine warfare sonars can be wide angle in a search mode or highly directional in a track mode.

Most anti-submarine warfare activities involving submarines or submarine targets would occur in waters greater than 600 feet (ft; 183 m) deep due to safety concerns about running aground at shallower depths.

Navigation and Safety

Similar to commercial and private vessels, Navy vessels employ navigational acoustic devices, including speed logs, Doppler sonars for ship positioning, and fathometers. These may be in use at any time for safe vessel operation. These sources are typically highly directional to obtain specific navigational data.

Communication

Sound sources used to transmit data (such as underwater modems), provide location (pingers), or send a single brief release signal to bottom-mounted devices (acoustic release) may be used throughout the TMAA. These sources typically have low duty cycles and are usually only used when it is desirable to send a detectable acoustic message.

Classification of Sonar and Other Transducers

Sonars and other transducers are grouped into classes that share an

attribute, such as frequency range or purpose. As detailed below, classes are further sorted by bins based on the frequency or bandwidth; source level; and, when warranted, the application for which the source would be used. Unless stated otherwise, a reference distance of 1 meter (m) is used for sonar and other transducers.

- Frequency of the non-impulsive acoustic source:
  - Low-frequency sources operate below 1 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; and
  - Very-high-frequency sources operate above 100 kHz but below 200 kHz.
- Sound pressure level:
  - Greater than 160 decibels (dB) referenced to 1 micropascal (re: 1 μPa), but less than 180 dB re: 1 μPa;
  - Equal to 180 dB re: 1 μPa and up to and including 200 dB re: 1 μPa; and
  - Greater than 200 dB re: 1 μPa.
- Application for which the source would be used:
  - Sources with similar functions that have similar characteristics, such as pulse length (duration of each pulse), beam pattern, and duty cycle.

The bins used for classifying active sonars and transducers that are quantitatively analyzed in the TMAA are shown in Table 1. While general parameters or source characteristics are shown in the table, actual source parameters are classified.

TABLE 1—SONAR AND OTHER TRANSDUCERS QUANTITATIVELY ANALYZED IN THE TMAA

For annual training activities					
Source class category	Bin	Description	Units	Annual	7-Year total
Mid-Frequency (MF) Tactical and non-tactical sources that produce signals from 1 to 10 kHz.	MF1	Hull-mounted surface ship sonars (*e.g.,* AN/SQS–53C and AN/SQS–60).	H	271	1,897
	MF3	Hull-mounted submarine sonars (*e.g.,* AN/BQQ–10).	H	25	175
	MF4	Helicopter-deployed dipping sonars (*e.g.,* AN/AQS–22).	H	27	189
	MF5	Active acoustic sonobuoys (*e.g.,* DICASS).	I	126	882
	MF6	Active underwater sound signal devices (*e.g.,* MK 84).	I	14	98
	MF11	Hull-mounted surface ship sonars with an active duty cycle greater than 80%.	H	42	294
	MF12	Towed array surface ship sonars with an active duty cycle greater than 80%.	H	14	98
High-Frequency (HF) Tactical and non-tactical sources that produce signals greater than 10 kHz but less than 100 kHz.	HF1	Hull-mounted submarine sonars (*e.g.,* AN/BQQ–10).	H	12	84
Anti-Submarine Warfare (ASW) Tactical sources used during ASW training activities.	ASW1	MF systems operating above 200 dB.	H	14	98
	ASW2	MF Multistatic Active Coherent sonobuoy (*e.g.,* AN/SSQ–125).	H	42	294
	ASW3	MF towed active acoustic countermeasure systems (*e.g.,* AN/SLQ–25).	H	273	1,911
	ASW4	MF expendable active acoustic device countermeasures (*e.g.,* MK3).	I	7	49

Notes: H = hours, I = count (*e.g.,* number of individual pings or individual sonobuoys), DICASS = Directional Command Activated Sonobuoy System.

Explosive Stressors

The near-instantaneous rise from ambient to an extremely high peak pressure is what makes an explosive shock wave potentially damaging. Farther from an explosive, the peak pressures decay and the explosive waves propagate as an impulsive, broadband sound. Several parameters influence the effect of an explosive: the weight of the explosive in the warhead, the type of explosive material, the boundaries and characteristics of the propagation medium, and the detonation depth in water. The net explosive weight, which is the explosive power of a charge expressed as the equivalent weight of trinitrotoluene (TNT), accounts for the first two parameters. The effects of these factors are explained in Appendix B (*Acoustic and Explosive Concepts*) of the 2020 GOA DSEIS/OEIS.

Explosive Use

Explosive detonations during training activities are from the use of explosive bombs, and naval gun shells; however, no in-water explosive detonations are included as part of the training activities. For purposes of the analysis in this proposed rule, detonations occurring in air at a height of 33 ft (10 m) or less above the water surface, and detonations occurring directly on the water surface, were modeled to detonate at a depth of 0.3 ft (0.1 m) below the water surface since there is currently no other identified methodology for modeling potential effects to marine

mammals that are underwater as a result of detonations occurring in-air at or above the surface of the ocean (within 10 m above the surface). This conservative approach over-estimates the potential underwater impacts due to low-altitude and surface explosives by assuming that all explosive energy is released and remains under the water surface.

Explosive stressors resulting from the detonation of some munitions, such as missiles and gun rounds used in air-air and surface-air scenarios, occur at high altitude. The resulting sound energy from those detonations in air would not impact marine mammals. The explosive energy released by detonations in air has been well studied, and basic methods are available to estimate the explosive energy exposure with distance from the detonation (*e.g.,* U.S. Department of the Navy (1975)). In air, the propagation of impulsive noise from an explosion is highly influenced by atmospheric conditions, including temperature and wind. While basic estimation methods do not consider the unique environmental conditions that may be present on a given day, they do allow for approximation of explosive energy propagation under neutral atmospheric conditions. Explosions that occur during Air Warfare would typically be at a sufficient altitude that a large portion of the sound refracts upward due to cooling temperatures with increased altitude. Based on an understanding of the explosive energy released by detonations in air, detonations occurring in air at altitudes greater than 10 m above the surface of the ocean are not likely to result in acoustic impacts on marine mammals; therefore, these types of explosive activities will not be discussed further in this document. (Note that most of these in-air detonations would occur at altitudes substantially greater than 10 m above the surface of the ocean, as described in further detail in section 3.0.4.2.2 (*Explosions in Air*) of the 2020 GOA DSEIS/OEIS.) Activities such as air-surface bombing or surface-surface gunnery scenarios may involve the use of explosive munitions that detonate upon impact with targets at or above the water surface (within 10 m above the surface). For these activities, acoustic effects modeling was undertaken as described below.

In order to organize and facilitate the analysis of explosives, explosive classification bins were developed. The use of explosive classification bins provides the same benefits as described for acoustic source classification bins in the *Acoustic Stressors* section, above.

The explosive bin types and the number of explosives detonating at or above the water surface in the TMAA are shown in Table 2.

TABLE 2—EXPLOSIVE SOURCES QUANTITATIVELY ANALYZED THAT DETONATE AT OR ABOVE THE WATER SURFACE IN THE TMAA

Explosives (source class and net explosive weight (NEW)) (lb.) *	Number of explosives with the specified activity (annually)	Number of explosives with the specified activity (7-year total)
E5 (>5–10 lb. NEW)	56	392
E9 (>100–250 lb. NEW)	64	448
E10 (>250–500 lb. NEW)	6	42
E12 (>650–1,000 lb. NEW)	2	14

* All of the E5, E9, E10, and E12 explosives would occur in-air, at or above the surface of the water, and would also occur offshore away from the continental shelf and slope beyond the 4,000-meter isobath.

Propagation of explosive pressure waves in water is highly dependent on environmental characteristics such as bathymetry, bottom type, water depth, temperature, and salinity, which affect how the pressure waves are reflected, refracted, or scattered; the potential for reverberation; and interference due to multi-path propagation. In addition, absorption greatly affects the distance over which higher-frequency components of explosive broadband noise can propagate. Appendix B (*Acoustic and Explosive Concepts*) of the 2020 GOA DSEIS/OEIS explains the characteristics of explosive detonations and how the above factors affect the propagation of explosive energy in the water. Because of the complexity of analyzing sound propagation in the ocean environment, the Navy relies on acoustic models in its environmental analyses that consider sound source characteristics and varying ocean conditions across the TMAA.

For in-air explosives detonating at or above the water surface, the model estimating acoustic impacts assumes that all acoustic energy from the detonation is underwater with no loss of sound or energy into the air. Important considerations must be factored into the analysis of results with these modeling assumptions, given that the peak pressure and sound from a detonation in air significantly decreases across the air-water interface as it is partially reflected by the water's surface and partially transmitted underwater, as detailed in the following paragraphs.

Detonation of an explosive in air creates a supersonic high pressure shock wave that expands outward from the point of detonation (Kinney and Graham, 1985; Swisdak, 1975). The near-instantaneous rise from ambient to an extremely high peak pressure is what makes the explosive shock wave potentially injurious to an animal experiencing the rapid pressure change (U.S. Department of the Navy, 2017a). As the shock wave-front travels away from the point of detonation, it slows and begins to behave as an acoustic wave-front travelling at the speed of sound. Whereas a shock wave from a detonation in-air has an abrupt peak pressure, that same pressure disturbance when transmitted through the water surface results in an underwater pressure wave that begins and ends more gradually compared with the in-air shock wave, and diminishes with increasing depth and distance from the source (Bolghasi *et al.,* 2017; Chapman and Godin, 2004; Cheng and Edwards, 2003; Moody, 2006; Richardson *et al.,* 1995; Sawyers, 1968; Sohn *et al.,* 2000; Swisdak, 1975; Waters and Glass, 1970; Woods *et al.,* 2015). The propagation of the shock wave in-air and then transitioning underwater is very different from a detonation occurring deep underwater where there is little interaction with the surface. In the case of an underwater detonation occurring just below the surface, a portion of the energy from the detonation would be released into the air (referred to as surface blow off), and at greater depths a pulsating, air-filled cavitation bubble would form, collapse, and reform around the detonation point (Urick, 1983). The Navy's acoustic effects model for analyzing underwater impacts on marine species does not account for the loss of energy due to surface blow-

off or cavitation at depth. Both of these phenomena would diminish the magnitude of the acoustic energy received by an animal under real-world conditions (U.S. Department of the Navy, 2018b).

To more completely analyze the results predicted by the Navy's acoustic effects model from detonations occurring in-air above the ocean surface, it is necessary to consider the transfer of energy across the air-water interface. Much of the scientific literature on the transferal of shock wave impulse across the air-water interface has focused on energy from sonic booms created by fast moving aircraft flying at low altitudes above the ocean (Chapman and Godin, 2004; Cheng and Edwards, 2003; Moody, 2006; Sawyers, 1968; Waters and Glass, 1970). The shock wave created by a sonic boom is similar to the propagation of a pressure wave generated by an explosion (although having a significantly slower rise in peak pressure) and investigations of sonic booms are somewhat informative. Waters and Glass (1970) were also investigating sonic booms, but their methodology involved actual in-air detonations. In those experiments, they detonated blasting caps elevated 30 ft (9 m) above the surface in a flooded quarry and measured the resulting pressure at and below the surface to determine the penetration of the shock wave across the air-water interface. Microphones above the water surface recorded the peak pressure in-air, and hydrophones at various shallow depths underwater recorded the unreflected remainder of the pressure wave after transition across the air-water interface. The peak pressure measurements were compared and the results supported the theoretical expectations for the penetration of a pressure wave from air into water, including the predicted exponential decay of energy with distance from the source underwater. In effect, the air-water interface acted as a low-pass filter eliminating the high-frequency components of the shock wave. At incident angles greater than 14 degrees perpendicular to the surface, most of the shock wave from the detonation was reflected off the water surface, which is consistent with results from similar research (Cheng and Edwards, 2003; Moody, 2006; Yagla and Stiegler, 2003). Given that marine mammals spend, on average, up to 90 percent of their time underwater (Costa, 1993; Costa and Block, 2009), and the shock wave from a detonation is only a few milliseconds in duration, marine mammals are unlikely to be exposed in-air when surfaced.

Vessel Strike

NMFS also considered the chance that a vessel utilized in training activities could strike a marine mammal in the GOA Study Area, including both the TMAA and WMA portions of the Study Area. Vessel strikes have the potential to result in incidental take from serious injury and/or mortality. Vessel strikes are not specific to any particular training activity, but rather are a limited, sporadic, and incidental result of Navy vessel movement within a study area. Vessel strikes from commercial, recreational, and military vessels are known to seriously injure and occasionally kill cetaceans (Abramson *et al.,* 2011; Berman-Kowalewski *et al.,* 2010; Calambokidis, 2012; Douglas *et al.,* 2008; Laggner, 2009; Lammers *et al.,* 2003; Van der Hoop *et al.,* 2012; Van der Hoop *et al.,* 2013), although reviews of the literature on ship strikes mainly involve collisions between commercial vessels and whales (Jensen and Silber, 2003; Laist *et al.,* 2001). Vessel speed, size, and mass are all important factors in determining both the potential likelihood and impacts of a vessel strike to marine mammals (Conn and Silber, 2013; Gende *et al.,* 2011; Silber *et al.,* 2010; Vanderlaan and Taggart, 2007; Wiley *et al.,* 2016). For large vessels, speed and angle of approach can influence the severity of a strike.

Navy vessels transit at speeds that are optimal for fuel conservation and to meet training requirements. Vessels used as part of the proposed specified activities include ships, submarines, unmanned vessels, and boats ranging in size from small, 22 ft (7 m) rigid hull inflatable boats to aircraft carriers with lengths up to 1,092 ft (333 m). The average speed of large Navy ships ranges between 10 and 15 knots (kn; 19–28 km/hr), and submarines generally operate at speeds in the range of 8 to 13 kn (15 to 24 km/hr), while a few specialized vessels can travel at faster speeds. Small craft (for purposes of this analysis, less than 18 m in length) have much more variable speeds (0 to 50+ kn (0 to 93+ km/hr)), dependent on the activity), but generally range from 10 to 14 kn (19–26 km/hr). From unpublished Navy data, average median speed for large Navy ships in the other Navy ranges from 2011–2015 varied from 5 to 10 kn (9 to 19 km/hr) with variations by ship class and location (*i.e.,* slower speeds close to the coast). Similar patterns would occur in the GOA Study Area. A full description of Navy vessels that are used during training activities can be found in Section 1.2.1 and Section 2.4.2.1 of the 2011 GOA FEIS/OEIS.

While these speeds are representative of most events, some vessels need to temporarily operate outside of these parameters for certain times or during certain activities. For example, to produce the required relative wind speed over the flight deck, an aircraft carrier engaged in flight operations must adjust its speed through the water accordingly. Also, there are other instances, such as launch and recovery of a small rigid hull inflatable boat; vessel boarding, search, and seizure training events; or retrieval of a target when vessels would be dead in the water or moving slowly ahead to maintain steerage.

Large Navy vessels (greater than 18 m in length) within the offshore areas of range complexes operate differently from commercial vessels in ways that may reduce potential whale collisions. Surface ships operated by or for the Navy have multiple personnel assigned to stand watch at all times when a ship or surfaced submarine is moving through the water (underway). A primary duty of personnel standing watch on surface ships is to detect and report all objects and disturbances sighted in the water that may indicate a threat to the vessel and its crew, such as debris, a periscope, surfaced submarine, or surface disturbance. Per vessel safety requirements, personnel standing watch also report any marine mammals sighted in the path of the vessel as a standard collision avoidance procedure. All vessels proceed at a safe speed so they can take proper and effective action to avoid a collision with any sighted object or disturbance, and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

Detailed Description of Proposed Activities

Proposed Training Activities

The Navy proposes to conduct a single carrier strike group (CSG) exercise which would last for a maximum of 21 consecutive days in a year. The CSG exercise is comprised of several individual training activities. Table 3 lists and describes those individual activities that may result in takes of marine mammals. The events listed would occur intermittently during the 21 days and could be simultaneous and in the same general area within the TMAA or could be independent and spatially separate from other ongoing activities. The table is organized according to primary mission areas and includes the activity name, associated stressor(s), description and duration of the activity, sound source bin, the areas

where the activities are conducted in the GOA Study Area, the maximum number of events per year in the 21-day period, and the maximum number of events over 7 years. Not all sound sources are used with each activity. The ''Annual # of Events'' column indicates the maximum number of times that activity could occur during any single year. The ''7-Year # of Events'' is the maximum number of times an activity would occur over the 7-year period of the proposed regulations if the training occurred each year and at the maximum levels requested. The events listed would occur intermittently during the exercise over a maximum of 21 days. The maximum number of activities may not occur in some years, and historically, training has occurred only every other year. However, to conduct a conservative analysis, NMFS analyzed the maximum times these activities could occur over one year and 7 years. The 2020 GOA DSEIS/OEIS includes more detailed activity descriptions. (Note the Navy proposes no low-frequency active sonar (LFAS) use for the activities in this rulemaking.)

TABLE 3—PROPOSED TRAINING ACTIVITIES ANALYZED FOR THE 7-YEAR PERIOD IN THE GOA STUDY AREA

Stressor category	Activity	Description	Source bin	Annual # of events	7-year # of events
Surface Warfare					
Explosive	Gunnery Exercise, Surface-to-Surface (GUNEX–S–S).	Surface ship crews fire inert small-caliber, inert medium-caliber, or large-caliber explosive rounds at surface targets.	E5	6	42
Explosive	Bombing Exercise (Air-to-Surface) (BOMBEX [A–S]).	Fixed-wing aircraft conduct bombing exercises against stationary floating targets, towed targets, or maneuvering targets.	E9, E10, E12	18	126
Anti-Submarine Warfare (ASW)					
Acoustic	Tracking Exercise—Helicopter (TRACKEX—Helo).	Helicopter crews search for, track, and detect submarines.	MF4, MF5, MF6	22	154
Acoustic	Tracking Exercise—Maritime Patrol Aircraft (TRACKEX—MPA).	Maritime patrol aircraft crews search for, track, and detect submarines.	MF5, MF6, ASW2	13	91
Acoustic	Tracking Exercise—Ship (TRACKEX—Ship).	Surface ship crews search for, track, and detect submarines.	ASW1, ASW3, MF1, MF11, MF12.	2	14
Acoustic	Tracking Exercise—Submarine (TRACKEX—Sub).	Submarine crews search for, track, and detect submarines.	ASW4, HF1, MF3	2	14

Notes: S–S = Surface to Surface, A–S = Air to Surface.

Standard Operating Procedures

For training to be effective, personnel must be able to safely use their sensors and weapon systems as they are intended to be used in military missions and combat operations and to their optimum capabilities. Standard operating procedures applicable to training have been developed through years of experience, and their primary purpose is to provide for safety (including public health and safety) and mission success. Because standard operating procedures are essential to safety and mission success, the Navy considers them to be part of the proposed specified activities, and has included them in the analysis. In many cases, there are benefits to natural and cultural resources resulting from standard operating procedures. Standard operating procedures that are recognized as having a potential benefit to marine mammals during training activities are noted below and discussed in more detail within the 2020 GOA DSEIS/OEIS.

- Vessel Safety;
- Weapons Firing Procedures;
- Target Deployment and Retrieval Safety; and
- Towed In-Water Device Procedures.

Standard operating procedures (which are implemented regardless of their secondary benefits) are different from mitigation measures (which are designed entirely for the purpose of avoiding or reducing impacts). Information on mitigation measures is provided in the Proposed Mitigation Measures section below. Additional information on standard operating procedures is presented in Section 2.3.2 (Standard Operating Procedures) in the 2020 GOA DSEIS/OEIS.

Description of Marine Mammals and Their Habitat in the Area of the Specified Activities

Marine mammal species and their associated stocks that have the potential to occur in the GOA Study Area are presented in Table 4 along with each stock's ESA and MMPA statuses, abundance estimate and associated coefficient of variation value, minimum abundance estimate, and expected occurrence in the GOA Study Area. The Navy requested authorization to take individuals of 16 marine mammal species by Level A harassment and Level B harassment, and NMFS has conservatively analyzed and proposes to authorize incidental take of two additional species. The Navy does not request authorization for any serious injuries or mortalities of marine mammals, and NMFS agrees that serious injury and mortality is unlikely to occur from the Navy's activities. NMFS recently designated critical habitat under the Endangered Species Act (ESA) for humpback whales in the TMAA portion of the GOA Study Area, and this designated critical habitat is considered below (86 FR 21082; April 21, 2021). The WMA portion of the GOA Study Area does not overlap ESA-designated critical habitat for humpback whales or any other species.

Information on the status, distribution, abundance, population trends, habitat, and ecology of marine mammals in the GOA Study Area may be found in Chapter 4 of the Navy's rulemaking/LOA application. NMFS has reviewed this information and found it

to be accurate and complete. Additional information on the general biology and ecology of marine mammals is included in the 2020 GOA DSEIS/OEIS. Table 4 incorporates the best available science, including data from the 2020 U.S. Pacific and the Alaska Marine Mammal Stock Assessment Reports (SARs; Carretta *et al.,* 2021; Muto *et al.,* 2021), 2021 draft U.S. Pacific and Alaska Marine Mammal SARs, as well as monitoring data from the Navy's marine mammal research efforts.

To better define marine mammal occurrence in the TMAA, the portion of the GOA Study Area where take of marine mammals is anticipated to occur, four regions within the TMAA were defined (and are depicted in Figure 3–1 of the Navy's rulemaking/LOA application), consistent with the survey strata used by Rone *et al.* (2017) during the most recent marine mammal surveys in the TMAA. The four regions are: inshore, slope, seamount, and offshore.

Species Not Included in the Analysis

There has been no change in the species unlikely to be present in the GOA Study Area since the last MMPA rulemaking process (82 FR 19530; April 27, 2017). The species carried forward for analysis are those likely to be found in the GOA Study Area based on the most recent data available and do not include species that may have once inhabited or transited the area but have not been sighted in recent years (*e.g.,* species which were extirpated from factors such as 19th and 20th century commercial exploitation). Several species and stocks that may be present in the northeast Pacific Ocean generally have an extremely low probability of presence in the GOA Study Area. These species and stocks are considered extralimital (may be sightings, acoustic detections, or stranding records, but the GOA Study Area is outside the species' range of normal occurrence) or rare (occur in the GOA Study Area sporadically, but sightings are rare). These species and stocks include the Eastern North Pacific Northern Resident and the West Coast Transient stocks of killer whale (*Orcinus orca*), beluga whale (*Delphinapterus leucas*), false killer whale (*Pseudorca crassidens*), short-finned pilot whale (*Globicephala macrorhynchus*), northern right whale dolphin (*Lissodelphis borealis*), and Risso's dolphin (*Grampus griseus*).

The Eastern North Pacific Northern Resident and the West Coast Transient stocks of killer whale are considered extralimital in the GOA Study Area. Given the paucity of any beluga whale sightings in the GOA (Laidre *et al.* 2000), the occurrence of this species within the GOA Study Area is considered extralimital. The GOA Study Area is also outside of the normal range of the false killer whale's distribution in the Pacific Ocean, and despite rare stranding or sighting reports, the GOA Study Area is outside of the normal range of the short-finned pilot whale as well. There are two sighting records of northern right whale dolphins in the Gulf of Alaska, but these are considered extremely rare (U.S. Department of the Navy 2006; NOAA 2012) and extralimital in the GOA Study Area. There are a few records of Risso's dolphins near the GOA Study Area; however, their occurrence within the GOA Study Area is rare, and therefore Risso's dolphin is considered extralimital. NMFS agrees with the Navy's assessment that these species are unlikely to occur in the GOA Study Area and they are not discussed further.

One species of marine mammal, the Northern sea otter, occurs in the Gulf of Alaska but is managed by the U.S. Fish and Wildlife Service and is not considered further in this document.

TABLE 4—MARINE MAMMAL OCCURRENCE WITHIN THE GOA STUDY AREA

Common name	Scientific name	Stock	ESA status, MMPA status, strategic (Y/N) [1]	Stock abundance (CV, Nmin, year of most recent abundance survey) [2]	PBR	Annual M/SI [3]	Occurrence in GOA study area [4]
Order Cetacea—Suborder Mysticeti (baleen whales)							
Family Balaenidae (right whales):							
North Pacific right whale.	*Eubalaena japonica*	Eastern North Pacific	E, D, Y	31 (0.226, 26, 2008)	[5] 0.05	0	Rare.
Family Balaenopteridae (rorquals):							
Humpback whale	*Megaptera novaeangliae.*	Central North Pacific [6]	-, -, Y	10,103 (0.3, 7,891, 2006).	83	26	Seasonal; highest likelihood June to September.
		California, Oregon, and Washington [6].	-, -, Y	4,973 (0.05, 4,776, 2018).	28.7	≥48.6	Seasonal; highest likelihood June to September.
		Western North Pacific	E, D, Y	1,107 (0.3, 865, 2006)	3	2.8	Seasonal; highest likelihood June to September.
Blue whale	*Balaenoptera musculus*	Eastern North Pacific	E, D, Y	1,898 (0.085, 1,767, 2018).	4.1	≥19.4	Seasonal; highest likelihood June to December.
		Central North Pacific	E, D, Y	133 (1.09, 63, 2010)	0.1	0	Seasonal; highest likelihood June to December.
Fin whale	*Balaenoptera physalus*	Northeast Pacific	E, D, Y	3,168 (0.26, 2,554, 2013) [7].	5.1	0.6	Likely.
Sei whale	*Balaenoptera borealis*	Eastern North Pacific [8]	E, D, Y	519 (0.4, 374, 2014)	0.75	≥0.2	Rare.
Minke whale	*Balaenoptera acutorostrata.*	Alaska	-, -, N	UNK	UND	0	Likely.
Family Eschrichtiidae (gray whale):							
Gray whale	*Eschrichtius robustus*	Eastern North Pacific	-, -, N	26,960 (0.05, 25,849, 2016).	801	131	Likely: Highest numbers during seasonal migrations (fall, winter, spring).

TABLE 4—MARINE MAMMAL OCCURRENCE WITHIN THE GOA STUDY AREA—Continued

Common name	Scientific name	Stock	ESA status, MMPA status, strategic (Y/N) [1]	Stock abundance (CV, Nmin, year of most recent abundance survey) [2]	PBR	Annual M/SI [3]	Occurrence in GOA study area [4]
		Western North Pacific	E, D, Y	290 (N/A, 271, 2016) ...	0.12	UNK	Rare: Individuals migrate through GOA.
Order Cetacea—Suborder Odontoceti (toothed whales)							
Family Physeteridae (sperm whale):							
Sperm whale	*Physeter macrocephalus.*	North Pacific	E, D, Y	345 (0.43, 244, 2015) [9]	UND	3.5	Likely; More likely in waters >1,000 m depth, most often >2,000 m.
Family Delphinidae (dolphins):							
Killer whale	Orcinus orca	Eastern North Pacific Alaska Resident.	-, -, N	[10] 2,347 (N/A, 2,347, 2012).	24	1	Likely.
		Eastern North Pacific Offshore.	-, -, N	300 (0.1, 276, 2012)	2.8	0	Likely.
		AT1 Transient	-, D, Y	[10] 7 (N/A, 7, 2018)	0.01	0	Rare; more likely inside Prince William Sound and Kenai Fjords.
		Eastern North Pacific GOA, Aleutian Island, and Bering Sea Transient.	-, -, N	[10] 587 (N/A, 587, 2012)	5.87	0.8	Likely.
Pacific white-sided dolphin.	*Lagenorhynchus obliquidens.*	North Pacific	-, -, N	26,880 (N/A, N/A, 1990).	UND	0	Likely.
Family Phocoenidae (porpoises):							
Harbor porpoise	*Phocoena phocoena* ...	GOA	-, -, Y	31,046 (0.21, N/A, 1998).	UND	72	Rare; Inshore and Slope Regions, if present.
		Southeast Alaska	-, -, Y	1,354 (0.12, 1,224, 2012).	12	34	Rare.
Dall's porpoise	*Phocoenoides dalli*	Alaska	-, -, N	83,400 (0.097, 3,110, 2015).	UND	37	Likely.
Family Ziphiidae (beaked whales):							
Cuvier's beaked whale.	*Ziphius cavirostris*	Alaska	-, -, N	UNK	UND	0	Likely.
Baird's beaked whale.	*Berardius bairdii*	Alaska	-, -, N	UNK	UND	0	Likely.
Stejneger's beaked whale.	*Mesoplodon stejnegeri*	Alaska	-, -, N	UNK	UND	0	Likely.
Order Carnivora—Suborder Pinnipedia [8]							
Family Otarieidae (fur seals and sea lions):							
Steller sea lion	*Eumetopias jubatus*	Eastern U.S	-, -, N	[11] 43,201 (N/A, 43,201, 2017).	2,592	112	Rare.
		Western U.S.	E, D, Y	[11] 52,932 (N/A, 52,932, 2013).	318	254	Likely; Inshore region.
California sea lion ...	*Zalophus californianus*	U.S	-, -, N	257,606 (N/A, 233,515, 2014).	14,011	>320	Rare (highest likelihood April and May).
Northern fur seal	*Callorhinus ursinus*	Eastern Pacific	-, D, Y	626,618 (0.2, 530,376, 2019).	11,403	373	Likely.
		California	-, D, N	14,050 (N/A, 7,524, 2013).	451	1.8	Rare.
Family Phocidae (true seals):							
Northern elephant seal.	*Mirounga angustirostris*	California Breeding	-, -, N	187,386 (N/A, 85,369, 2013).	5,122	5.3	Seasonal (highest likelihood July–September).
Harbor seal	*Phoca vitulina*	N Kodiak	-, -, N	8,677 (N/A, 7,609, 2017).	228	38	Likely; Inshore region.
		S Kodiak	-, -, N	26,448 (N/A, 22,351, 2017).	939	127	Likely; Inshore region.
		Prince William Sound ..	-, -, N	44,756 (N/A, 41,776, 2015).	1,253	413	Likely; Inshore region.
		Cook Inlet/Shelikof	-, -, N	28,411 (N/A, 26,907, 2018).	807	107	Likely; Inshore region.
Ribbon seal	*Histriophoca fasciata* ...	Unidentified	-, -, N	184,697 (N/A, 163,086, 2013).	9,785	163	Rare.

Notes: CV = coefficient of variation, ESA = Endangered Species Act, GOA = Gulf of Alaska, m = meter(s), MMPA = Marine Mammal Protection Act, N/A = not available, U.S. = United States, M/SI = mortality and serious injury, UNK = unknown, UND = undetermined.

[1] Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds potential biological removal (PBR) or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[2] The stocks and stock abundance number are as provided in Carretta *et al.,* 2021 and Muto *et al.,* 2021. Nmin is the minimum estimate of stock abundance. In some cases, CV is not applicable. NMFS marine mammal stock assessment reports online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region.*

[3] These values, found in NMFS' SARs, represent annual levels of human-caused mortality and serious injury (M/SI) from all sources combined (*e.g.,* commercial fisheries, ship strike). Annual mortality and serious injury (M/SI) often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

[4] RARE: The distribution of the species is near enough to the GOA Study Area that the species could occur there, or there are a few confirmed sightings. LIKELY: Year-round sightings or acoustic detections of the species in the GOA Study Area, although there may be variation in local abundance over the year. SEASONAL: Species absence and presence as documented by surveys or acoustic monitoring. Regions within the GOA Study Area follow those presented in Rone *et al.* (2015); Rone *et al.* (2009); Rone *et al.* (2014); Rone *et al.* (2017): inshore, slope, seamount, and offshore.

[5] See SAR for more details

[6] Humpback whales in the Central North Pacific stock and the California, Oregon, and Washington stock are from three Distinct Population Segments based on animals identified in breeding areas in Hawaii, Mexico, and Central America (Carretta *et al.,* 2021; Muto *et al.,* 2021; National Marine Fisheries Service, 2016c).

[7] The SAR reports this stock abundance assessment as provisional and notes that it is an underestimate for the entire stock because it is based on surveys which covered only a small portion of the stock's range.

[8] This analysis assumes that these individuals are from the Eastern North Pacific stock; however, they are not discussed in the West Coast or the Alaska Stock Assessment Reports (Carretta *et al.,* 2021; Muto *et al.,* 2021).

[9] The SAR reports that this is an underestimate for the entire stock because it is based on surveys of a small portion of the stock's extensive range and it does not account for animals missed on the trackline or for females and juveniles in tropical and subtropical waters.

[10] Stock abundance is based on counts of individual animals identified from photo-identification catalogues. Surveys for abundance estimates of these stocks are conducted infrequently.

[11] Stock abundance is the best estimate of pup and non-pup counts, which have not been corrected to account for animals at sea during abundance surveys.

Below, we consider additional information about the marine mammals in the area of the specified activities that informs our analysis, such as identifying known areas of important habitat or behaviors, or where Unusual Mortality Events (UME) have been designated.

Critical Habitat

On April 21, 2021 (86 FR 21082), NMFS published a final rule designating critical habitat for the endangered Western North Pacific DPS, the endangered Central America DPS, and the threatened Mexico DPS of humpback whales, including specific marine areas located off the coasts of California, Oregon, Washington, and Alaska. Based on consideration of national security, economic impacts, and data deficiency in some areas, NMFS excluded certain areas from the designation for each DPS.

NMFS identified prey species, primarily euphausiids and small pelagic schooling fishes (see the final rule for particular prey species identified for each DPS; 86 FR 21082; April 21, 2021) of sufficient quality, abundance, and accessibility within humpback whale feeding areas to support feeding and population growth, as an essential habitat feature. NMFS, through a critical habitat review team (CHRT), also considered inclusion of migratory corridors and passage features, as well as sound and the soundscape, as essential habitat features. However, NMFS did not include either, as the CHRT concluded that the best available science did not allow for identification of any consistently used migratory corridors or definition of any physical, essential migratory or passage conditions for whales transiting between or within habitats of the three DPSs. The best available science also currently does not enable NMFS to identify a sound-related habitat feature that is essential to the conservation of humpback whales.

NMFS considered the co-occurrence of this designated humpback whale critical habitat and the GOA Study Area. Figure 4–1 of the Navy's rulemaking/LOA application shows the overlap of the humpback whale critical habitat with the TMAA. As shown in the Navy's rulemaking/LOA application, the TMAA overlaps with humpback whale critical habitat Unit 5 (destination for whales from the Hawaii, Mexico, and Western North Pacific DPSs; Calambokidis *et al.,* 2008) and Unit 8 (destination for whales from the Hawaii and Mexico DPSs (Baker *et al.,* 1986, Calambokidis *et al.,* 2008); Western North Pacific DPS whales have not been photo-identified in this specific area, but presence has been inferred based on available data indicating that humpback whales from Western North Pacific wintering areas occur in the Gulf of Alaska (NMFS 2020, Table C5)). Approximately 4 percent of the humpback whale critical habitat in the GOA region overlaps with the TMAA, and approximately 2 percent of critical habitat in both the GOA and U.S. west coast regions combined overlaps with the TMAA. The WMA portion of the GOA Study Area does not overlap ESA-designated critical habitat for humpback whales.

As noted above in the *Geographical Region* section, the TMAA boundary was intentionally designed to avoid ESA-designated Western DPS (MMPA Western U.S. stock) Steller sea lion critical habitat.

Biologically Important Areas

BIAs include areas of known importance for reproduction, feeding, or migration, or areas where small and resident populations are known to occur (Van Parijs, 2015). Unlike ESA critical habitat, these areas are not formally designated pursuant to any statute or law, but are a compilation of the best available science intended to inform impact and mitigation analyses. An interactive map of BIAs may be found here: *https://cetsound.noaa.gov/biologically-important-area-map.*

The WMA does not overlap with any known BIAs. BIAs in the GOA that overlap portions of the TMAA include the following feeding and migration areas: North Pacific right whale feeding BIA (June–September); Gray whale migratory corridor BIA (November–January, southbound; March–May, northbound) (Ferguson *et al.,* 2015). Fin whale feeding areas (east, west, and southwest of Kodiak Island) occur to the west of the TMAA and gray whale feeding areas occur both east (Southeast Alaska) and west (Kodiak Island) of the TMAA; however, these feeding areas are located well outside of (≤ 20 nmi (37 km)) the TMAA and beyond the Navy's estimated range to effects for take by Level A harassment and Level B harassment.

A portion of the North Pacific right whale feeding BIA overlaps with the western side of the TMAA by approximately 2,051 square kilometers (km^2; approximately 1.4 percent of the TMAA, and 7 percent of the feeding BIA). A small portion of the gray whale migration corridor BIA also overlaps with the western side of the TMAA by approximately 1,582 km^2 (approximately 1 percent of the TMAA, and 1 percent of the migration corridor BIA). To mitigate impacts to marine mammals in these BIAs, the Navy would implement several procedural mitigation measures and mitigation areas (described in the Proposed Mitigation Measures section).

Unusual Mortality Events (UMEs)

A UME is defined under Section 410(6) of the MMPA as a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response. There is one UME that is applicable to our evaluation of the Navy's activities in the GOA Study Area. The gray whale UME along the west coast of North America is active and involves ongoing investigations in the GOA that inform our analysis are discussed below.

Gray Whale UME

Since January 1, 2019, elevated gray whale strandings have occurred along the west coast of North America, from Mexico to Canada. As of June 3, 2022, there have been a total of 578 strandings along the coasts of the United States, Canada, and Mexico, with 278 of those strandings occurring along the U.S. coast. Of the strandings on the U.S. coast, 118 have occurred in Alaska, 66 in Washington, 14 in Oregon, and 80 in California. Full or partial necropsy examinations were conducted on a subset of the whales. Preliminary findings in several of the whales have shown evidence of emaciation. These findings are not consistent across all of the whales examined, so more research is needed. As part of the UME investigation process, NOAA has assembled an independent team of scientists to coordinate with the Working Group on Marine Mammal Unusual Mortality Events to review the data collected, sample stranded whales, consider possible causal-linkages between the mortality event and recent ocean and ecosystem perturbations, and determine the next steps for the investigation. Please refer to: *https://www.fisheries.noaa.gov/national/marine-life-distress/2019-2022-gray-whale-unusual-mortality-event-along-west-coast-and* for more information on this UME.

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 dB threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. The functional groups and the associated frequencies are indicated below (note that these frequency ranges correspond to the range for the composite group, with the entire range not necessarily reflecting the capabilities of every species within that group):

- Low-frequency cetaceans (mysticetes): generalized hearing is estimated to occur between approximately 7 Hz and 35 kHz;
- Mid-frequency cetaceans (larger toothed whales, beaked whales, and most delphinids): generalized hearing is estimated to occur between approximately 150 Hz and 160 kHz;
- High-frequency cetaceans (porpoises, river dolphins, and members of the genera Kogia and Cephalorhynchus; including two members of the genus Lagenorhynchus, on the basis of recent echolocation data and genetic data): generalized hearing is estimated to occur between approximately 275 Hz and 160 kHz;
- Pinnipeds in water; Phocidae (true seals): generalized hearing is estimated to occur between approximately 50 Hz to 86 kHz; and
- Pinnipeds in water; Otariidae (eared seals): generalized hearing is estimated to occur between 60 Hz and 39 kHz.

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.,* 2006; Kastelein *et al.,* 2009; Reichmuth and Holt, 2013).

For more details concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of the available information.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

This section includes a discussion of the ways that components of the specified activity may impact marine mammals and their habitat. The Estimated Take of Marine Mammals section later in this rule includes a quantitative analysis of the number of instances of take that could occur from these activities. The Preliminary Analysis and Negligible Impact Determination section considers the content of this section, the Estimated Take of Marine Mammals section, and the Proposed Mitigation Measures section to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and whether those impacts on individuals are likely to adversely affect the species through effects on annual rates of recruitment or survival.

The Navy has requested authorization for the take of marine mammals that may occur incidental to training activities in the GOA Study Area. The Navy analyzed potential impacts to marine mammals in its rulemaking/LOA application. NMFS carefully reviewed the information provided by the Navy along with independently reviewing applicable scientific research and literature and other information to evaluate the potential effects of the Navy's activities on marine mammals, which are presented in this section. (As noted above, activities that would result in take of marine mammals would only occur in the TMAA portion of the GOA Study Area.)

Other potential impacts to marine mammals from training activities in the GOA Study Area were analyzed in the Navy's rulemaking/LOA application as well as in the 2020 GOA DSEIS/OEIS and 2022 Supplement to the 2020 GOA DSEIS/OEIS, in consultation with NMFS as a cooperating agency, and determined to be unlikely to result in marine mammal take. These include incidental take from vessel strike and serious injury or mortality from explosives. Therefore, the Navy did not request authorization for incidental take of marine mammals by vessel strike or serious injury or mortality from explosives from its proposed specified activities. NMFS has carefully considered the information in the 2020 GOA DSEIS/OEIS, the 2022 Supplement to the 2020 GOA DSEIS/OEIS, and all other pertinent information and agrees that incidental take is unlikely to occur from these sources. NMFS conducted a detailed analysis of the potential for vessel strike, and based on that analysis,

NMFS does not anticipate vessel strikes of large whales or smaller marine mammals in the GOA Study Area. In this proposed rule, NMFS analyzes the potential effects of the Navy's activities on marine mammals in the GOA Study Area, focusing primarily on the activity components that may cause the take of marine mammals: exposure to acoustic or explosive stressors including non-impulsive (sonar and other transducers) and impulsive (explosives) stressors.

For the purpose of MMPA incidental take authorizations, NMFS' effects assessments serve four primary purposes: (1) to determine whether the specified activities would have a negligible impact on the affected species or stocks of marine mammals (based on whether it is likely that the activities would adversely affect the species or stocks through effects on annual rates of recruitment or survival); (2) to determine whether the specified activities would have an unmitigable adverse impact on the availability of the species or stocks for subsistence uses; (3) to prescribe the permissible methods of taking (*i.e.,* Level B harassment (behavioral disturbance and temporary threshold shift (TTS)), Level A harassment (permanent threshold shift (PTS) and non-auditory injury), serious injury, or mortality), including identification of the number and types of take that could occur by harassment, serious injury, or mortality, and to prescribe means of effecting the least practicable adverse impact on the species or stocks and their habitat (*i.e.,* mitigation measures); and (4) to prescribe requirements pertaining to monitoring and reporting.

In this section, NMFS provides a description of the ways marine mammals potentially could be affected by these activities in the form of mortality, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particularly stress responses), behavioral disturbance, or habitat effects. The Estimated Take of Marine Mammals section discusses how the potential effects on marine mammals from non-impulsive and impulsive sources relate to the MMPA definitions of Level A Harassment and Level B Harassment, and quantifies those effects that rise to the level of a take. The Preliminary Analysis and Negligible Impact Determination section assesses whether the proposed authorized take would have a negligible impact on the affected species and stocks.

Potential Effects of Underwater Sound

Anthropogenic sounds cover a broad range of frequencies and sound levels and can have a range of highly variable impacts on marine life, from none or minor to potentially severe responses, depending on received levels, duration of exposure, behavioral context, and various other factors. The potential effects of underwater sound from active acoustic sources can possibly result in one or more of the following: temporary or permanent hearing impairment, non-auditory physical or physiological effects, behavioral response, stress, and masking (Richardson *et al.,* 1995; Gordon *et al.,* 2004; Nowacek *et al.,* 2007; Southall *et al.,* 2007; Götz *et al.,* 2009, Southall *et al.,* 2019a). The degree of effect is intrinsically related to the signal characteristics, received level, distance from the source, and duration of the sound exposure. In general, sudden, high level sounds can cause hearing loss, as can longer exposures to lower level sounds. Temporary or permanent loss of hearing can occur after exposure to noise, and occurs almost exclusively for noise within an animal's hearing range. Note that in the following discussion, we refer in many cases to a review article concerning studies of noise-induced hearing loss conducted from 1996–2015 (*i.e.,* Finneran, 2015). For study-specific citations, please see that work. We first describe general manifestations of acoustic effects before providing discussion specific to the Navy's activities.

Richardson *et al.* (1995) described zones of increasing intensity of effect that might be expected to occur, in relation to distance from a source and assuming that the signal is within an animal's hearing range. First is the area within which the acoustic signal would be audible (potentially perceived) to the animal, but not strong enough to elicit any overt behavioral or physiological response. The next zone corresponds with the area where the signal is audible to the animal and of sufficient intensity to elicit behavioral or physiological responsiveness. Third is a zone within which, for signals of high intensity, the received level is sufficient to potentially cause discomfort or tissue damage to auditory systems. Overlaying these zones to a certain extent is the area within which masking (*i.e.,* when a sound interferes with or masks the ability of an animal to detect a signal of interest that is above the absolute hearing threshold) may occur; the masking zone may be highly variable in size.

We also describe more severe potential effects (*i.e.,* certain non-auditory physical or physiological effects). Potential effects from impulsive sound sources can range in severity from effects such as behavioral disturbance or tactile perception to physical discomfort, slight injury of the internal organs and the auditory system, or mortality (Yelverton *et al.,* 1973). Non-auditory physiological effects or injuries that theoretically might occur in marine mammals exposed to high level underwater sound or as a secondary effect of extreme behavioral reactions (*e.g.,* change in dive profile as a result of an avoidance reaction) include neurological effects, bubble formation, resonance effects, and other types of organ or tissue damage (Cox *et al.,* 2006; Southall *et al.,* 2007; Zimmer and Tyack, 2007; Tal *et al.,* 2015).

Acoustic Sources

Direct Physiological Effects

Non-impulsive sources of sound can cause direct physiological effects including noise-induced loss of hearing sensitivity (or ''threshold shift''), nitrogen decompression, acoustically-induced bubble growth, and injury due to sound-induced acoustic resonance. Only noise-induced hearing loss is anticipated to occur due to the Navy's activities. Acoustically-induced (or mediated) bubble growth and other pressure-related physiological impacts are addressed below, but are not expected to result from the Navy's activities. 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 and Mortality* subsection.

Hearing Loss—Threshold Shift

Marine mammals exposed to high-intensity sound, or to lower-intensity sound for prolonged periods, can experience hearing threshold shift, which is the loss of hearing sensitivity at certain frequency ranges after cessation of sound (Finneran, 2015). Threshold shift can be permanent (PTS), in which case the loss of hearing sensitivity is not fully recoverable, or temporary (TTS), in which case the animal's hearing threshold would recover over time (Southall *et al.,* 2007). TTS can last from minutes or hours to days (*i.e.,* there is recovery back to baseline/pre-exposure levels), can occur within a specific frequency range (*i.e.,* an animal might only have a temporary loss of hearing sensitivity within a limited frequency band of its auditory

range), and can be of varying amounts (*e.g.,* an animal's hearing sensitivity might be reduced by only 6 dB or reduced by 30 dB). While there is no simple functional relationship between TTS and PTS or other auditory injury (*e.g.,* neural degeneration), as TTS increases, the likelihood that additional exposure sound pressure level (SPL) or duration will result in PTS or other injury also increases (see also the 2020 GOA DSEIS/OEIS for additional discussion). Exposure thresholds for the onset of PTS or other auditory injury are defined by the amount of sound energy that results in 40 dB of TTS. This value is informed by experimental data, and is used as a proxy for the onset of auditory injury; *i.e.,* it is assumed that exposures beyond those capable of causing 40 dB of TTS have the potential to result in PTS or other auditory injury (*e.g.,* loss of cochlear neuron synapses, even in the absence of PTS). In severe cases of PTS, there can be total or partial deafness, while in most cases the animal has an impaired ability to hear sounds in specific frequency ranges (Kryter, 1985).

When PTS occurs, there is physical damage to the sound receptors in the ear (*i.e.,* tissue damage), whereas TTS represents primarily tissue fatigue and is reversible (Southall *et al.,* 2007). PTS is permanent (*i.e.,* there is incomplete recovery back to baseline/pre-exposure levels), but also can occur in a specific frequency range and amount as mentioned above for TTS. In addition, other investigators have suggested that TTS is within the normal bounds of physiological variability and tolerance and does not represent physical injury (*e.g.,* Ward, 1997). Therefore, NMFS does not consider TTS to constitute auditory injury.

The following physiological mechanisms are thought to play a role in inducing auditory threshold shift: 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 threshold shift and the frequency range in which it occurs. Generally, the amount of threshold shift, and the time needed to recover from the effect, increase as amplitude and duration of sound exposure increases. Human non-impulsive noise exposure guidelines are based on the assumption that exposures of equal energy (the same sound exposure level (SEL)) produce equal amounts of hearing impairment regardless of how the sound energy is distributed in time (NIOSH, 1998). Previous marine mammal TTS studies have also generally supported this equal energy relationship (Southall *et al.,* 2007). However, some more recent studies concluded that for all noise exposure situations the equal energy relationship may not be the best indicator to predict TTS onset levels (Mooney *et al.,* 2009a and 2009b; Kastak *et al.,* 2007). These studies highlight the inherent complexity of predicting TTS onset in marine mammals, as well as the importance of considering exposure duration when assessing potential impacts. Generally, with sound exposures of equal energy, those that were quieter (lower SPL) with longer duration were found to induce TTS onset at lower levels than those of louder (higher SPL) and shorter duration. Less threshold shift will occur from intermittent sounds than from a continuous exposure with the same energy (some recovery can occur between intermittent exposures) (Kryter *et al.,* 1966; Ward, 1997; Mooney *et al.,* 2009a, 2009b; Finneran *et al.,* 2010). For example, one short but loud (higher SPL) sound exposure may induce the same impairment as one longer but softer (lower SPL) 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 or repeated 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; Lonsbury-Martin *et al.,* 1987).

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).

The NMFS Acoustic Technical Guidance (NMFS, 2018), which was used in the assessment of effects for this rule, compiled, interpreted, and synthesized the best available scientific information for noise-induced hearing effects for marine mammals to derive updated thresholds for assessing the impacts of noise on marine mammal hearing. More recently, Southall *et al.* (2019a) evaluated Southall *et al.* (2007) and used updated scientific information to propose revised noise exposure criteria to predict onset of auditory effects in marine mammals (*i.e.,* PTS and TTS onset). Southall *et al.* (2019a) note that the quantitative processes described and the resulting exposure criteria (*i.e.,* thresholds and auditory weighting functions) are largely identical to those in Finneran (2016) and NMFS (2018). They only differ in that the Southall *et al.* (2019a) exposure criteria are more broadly applicable as they include all marine mammal species (rather than only those under NMFS jurisdiction) for all noise exposures (both in air and underwater for amphibious species) and, while the hearing group compositions are identical, they renamed the hearing groups. Southall *et al.* (2021) updated the behavioral response severity criteria laid out in Southall *et al.* (2007) and included recommendations on how to present and score behavioral responses in future work.

Many studies have examined noise-induced hearing loss in marine mammals (see Finneran (2015) and Southall *et al.* (2019a) for summaries), however for cetaceans, published data on the onset of TTS are limited to the captive bottlenose dolphin, beluga, harbor porpoise, and Yangtze finless porpoise, and for pinnipeds in water, measurements of TTS are limited to harbor seals, elephant seals, and California sea lions. These studies examine hearing thresholds measured in marine mammals before and after exposure to intense sounds. The difference between the pre-exposure and post-exposure thresholds can then be used to determine the amount of threshold shift at various post-exposure times. NMFS has reviewed the available studies, which are summarized below (see also the 2020 GOA DSEIS/OEIS which includes additional discussion on TTS studies related to sonar and other transducers).

- The method used to test hearing may affect the resulting amount of measured TTS, with neurophysiological measures producing larger amounts of TTS compared to psychophysical measures (Finneran *et al.,* 2007; Finneran, 2015).
- The amount of TTS varies with the hearing test frequency. As the exposure SPL increases, the frequency at which the maximum TTS occurs also increases (Kastelein *et al.,* 2014b). For high-level exposures, the maximum TTS typically occurs one-half to one octave above the exposure frequency (Finneran *et al.,* 2007; Mooney *et al.,* 2009a; Nachtigall *et al.,* 2004; Popov *et al.,* 2011; Popov *et al.,* 2013; Schlundt *et al.,* 2000;

Kastelein *et al.,* 2021b; Kastelien *et al.,* 2022). The overall spread of TTS from tonal exposures can therefore extend over a large frequency range (*i.e.,* narrowband exposures can produce broadband (greater than one octave) TTS).

• The amount of TTS increases with exposure SPL and duration and is correlated with SEL, especially if the range of exposure durations is relatively small (Kastak *et al.,* 2007; Kastelein *et al.,* 2014b; Popov *et al.,* 2014). As the exposure duration increases, however, the relationship between TTS and SEL begins to break down. Specifically, duration has a more significant effect on TTS than would be predicted on the basis of SEL alone (Finneran *et al.,* 2010a; Kastak *et al.,* 2005; Mooney *et al.,* 2009a). This means if two exposures have the same SEL but different durations, the exposure with the longer duration (thus lower SPL) will tend to produce more TTS than the exposure with the higher SPL and shorter duration. In most acoustic impact assessments, the scenarios of interest involve shorter duration exposures than the marine mammal experimental data from which impact thresholds are derived; therefore, use of SEL tends to over-estimate the amount of TTS. Despite this, SEL continues to be used in many situations because it is relatively simple, more accurate than SPL alone, and lends itself easily to scenarios involving multiple exposures with different SPL.

• Gradual increases of TTS may not be directly observable with increasing exposure levels, before the onset of PTS (Reichmuth *et al.,* 2019). Similarly, PTS can occur without measurable behavioral modifications (Reichmuth *et al.,* 2019).

• The amount of TTS depends on the exposure frequency. Sounds at low frequencies, well below the region of best sensitivity, are less hazardous than those at higher frequencies, near the region of best sensitivity (Finneran and Schlundt, 2013). The onset of TTS—defined as the exposure level necessary to produce 6 dB of TTS (*i.e.,* clearly above the typical variation in threshold measurements)—also varies with exposure frequency. At low frequencies, onset-TTS exposure levels are higher compared to those in the region of best sensitivity. For example, for harbor porpoises exposed to one-sixth octave noise bands at 16 kHz (Kastelein *et al.,* 2019f), 32 kHz (Kastelein *et al.,* 2019d), 63 kHz (Kastelein *et al.,* 2020a), and 88.4 kHz (Kastelein *et al.,* 2020b), less susceptibility to TTS was found as frequency increased, whereas exposure frequencies below ~6.5 kHz showed an increase in TTS susceptibility as frequency increased and approached the region of best sensitivity. Kastelein *et al.* (2020b) showed a much higher onset of TTS for a 88.5 kHz exposure as compared to lower exposure frequencies (*i.e.,* 16 kHz (Kastelein *et al.,* 2019) 1.5 kHz and 6.5 kHz (Kastelein *et al.,* 2020a)). For the 88.4 kHz test frequency, a 185 dB re 1 micropascal squared per second (μPa^2-s) exposure resulted in 3.6 dB of TTS, and a 191 dB re 1 μPa^2-s exposure produced 5.2 dB of TTS at 100 kHz and 5.4 dB of TTS at 125 kHz. Together, these new studies demonstrate that the criteria for high-frequency (HF) cetacean auditory impacts is likely to be conservative.

• TTS can accumulate across multiple exposures, but the resulting TTS will be less than the TTS from a single, continuous exposure with the same SEL (Finneran *et al.,* 2010a; Kastelein *et al.,* 2014b; Kastelein *et al.,* 2015b; Mooney *et al.,* 2009b). This means that TTS predictions based on the total, cumulative SEL will overestimate the amount of TTS from intermittent exposures such as sonars and impulsive sources. The importance of duty cycle in predicting the likelihood of TTS is demonstrated further in Kastelein *et al.* (2021b). The authors found that reducing the duty cycle of a sound generally reduced the potential for TTS in California sea lions, and that, further, California sea lions are more susceptible to TTS than previously believed at the 2 and 4 kHz frequencies tested.

• The amount of observed TTS tends to decrease with increasing time following the exposure; however, the relationship is not monotonic (*i.e.,* increasing exposure does not always increase TTS). The time required for complete recovery of hearing depends on the magnitude of the initial shift; for relatively small shifts recovery may be complete in a few minutes, while large shifts (*e.g.,* approximately 40 dB) may require several days for recovery. Recovery times are consistent for similar-magnitude TTS, regardless of the type of fatiguing sound exposure (impulsive, continuous noise band, or sinusoidal wave; (Kastelein *et al.,* 2019e)). Under many circumstances TTS recovers linearly with the logarithm of time (Finneran *et al.,* 2010a, 2010b; Finneran and Schlundt, 2013; Kastelein *et al.,* 2012a; Kastelein *et al.,* 2012b; Kastelein *et al.,* 2013a; Kastelein *et al.,* 2014b; Kastelein *et al.,* 2014c; Popov *et al.,* 2011; Popov *et al.,* 2013; Popov *et al.,* 2014). This means that for each doubling of recovery time, the amount of TTS will decrease by the same amount (*e.g.,* 6 dB recovery per doubling of time). Please see Section 3.8.3.1.1.2 of the 2020 GOA DSEIS/OEIS for discussion of additional threshold shift literature.

Nachtigall *et al.* (2018) and Finneran (2018) describe the measurements of hearing sensitivity of multiple odontocete species (bottlenose dolphin, harbor porpoise, beluga, and false killer whale) when a relatively loud sound was preceded by a warning sound. These captive animals were shown to reduce hearing sensitivity when warned of an impending intense sound. Based on these experimental observations of captive animals, the authors suggest that wild animals may dampen their hearing during prolonged exposures or if conditioned to anticipate intense sounds. Another study showed that echolocating animals (including odontocetes) might have anatomical specializations that might allow for conditioned hearing reduction and filtering of low-frequency ambient noise, including increased stiffness and control of middle ear structures and placement of inner ear structures (Ketten *et al.,* 2021). Finneran recommends further investigation of the mechanisms of hearing sensitivity reduction in order to understand the implications for interpretation of existing TTS data obtained from captive animals, notably for considering TTS due to short duration, unpredictable exposures.

Marine mammal hearing plays a critical role in communication with conspecifics and in 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 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 a time when communication is critical for successful mother/calf interactions could have more serious impacts if it were in the same frequency band as the necessary vocalizations and of a severity that impeded communication. Animals exposed to high levels of sound that would be expected to result in this physiological response would also be expected to have behavioral responses of a

comparatively more severe or sustained nature, which is potentially more significant than simple existence of a TTS. However, it is important to note that TTS could occur due to longer exposures to sound at lower levels so that a behavioral response may not be elicited.

Depending on the degree and frequency range, the effects of PTS on an animal could also range in severity, although it is considered generally more serious than TTS 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 some cost to the animal.

Acoustically-Induced Bubble Formation Due to Sonars and Other Pressure-Related Impacts

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 (in combination with the source levels) of sonar pings 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. Recent research with *ex vivo* supersaturated bovine tissues suggested that, for a 37 kHz signal, a sound exposure of approximately 215 dB referenced to (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 at 1 m, a whale would need to be within 10 m (33 ft) of the sonar dome to be exposed to such sound levels. Furthermore, tissues in the study were supersaturated by exposing them to pressures of 400–700 kilopascals 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 400–700 percent. These levels of tissue supersaturation are substantially higher than model predictions for marine mammals (Houser *et al.,* 2001; Saunders *et al.,* 2008). It is improbable that this mechanism is responsible for stranding events or traumas associated with beaked whale strandings because both the degree of supersaturation and exposure levels observed to cause microbubble destabilization are unlikely to occur, either alone or in concert.

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; Fernández *et al.,* 2012). 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; Cox *et al.,* 2006; Rommel *et al.,* 2006). 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). 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). Jepson *et al.* (2003, 2005) and Fernandez *et al.* (2004, 2005, 2012) concluded that in vivo bubble formation, which may be exacerbated by deep, long-duration, repetitive dives may explain why beaked whales appear to be relatively vulnerable to MF/HF sonar exposures. It has also been argued that traumas from some beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.,* 2003); however, there is no conclusive evidence of this (Rommel *et al.,* 2006). Based on examination of sonar-associated strandings, Bernaldo de Quiros *et al.* (2019) list diagnostic features, the presence of all of which suggest gas and fat embolic syndrome for beaked whales stranded in association with sonar exposure.

As described in additional detail in the Nitrogen Decompression subsection of the 2020 GOA DSEIS/OEIS, marine mammals generally are thought to deal with nitrogen loads in their blood and other tissues, caused by gas exchange from the lungs under conditions of high ambient pressure during diving, through anatomical, behavioral, and physiological adaptations (Hooker *et al.,* 2012). Although not a direct injury, variations in marine mammal diving behavior or avoidance responses have been hypothesized to result in nitrogen off-gassing in super-saturated tissues, possibly to the point of deleterious vascular and tissue bubble formation (Hooker *et al.,* 2012; Jepson *et al.,* 2003; Saunders *et al.,* 2008) with resulting symptoms similar to decompression sickness, however the process is still not well understood.

Fahlman *et al.* (2021) explained how stress can have a critical role in causing the gas emboli present in stranded cetaceans. The authors review decompression theory and the mechanisms dolphins have evolved to prevent high N_2 levels and gas emboli in normal conditions, and describe how, in times of high stress, the selective gas exchange hypothesis states that this mechanism can break down. In addition, circulating microparticles may be a useful biomarker for decompression stress in cetaceans. Velazquez-Wallraf *et al.* (2021) found that individual variation also has an essential role in

this condition. To validate decompression sickness observations in certain stranded cetaceans found coincident with naval activities, the study used rabbits as an experimental pathological model and found that rabbit mortalities during or immediately following decompression showed systematically distributed gas bubbles (microscopic and macroscopic), as well as emphysema and hemorrhages in multiple organs, similar to observations in the stranded cetacean mortalities. Similar findings were not found in almost half the rabbits that survived at least one hour after decompression, revealing individual variation has an essential role in this condition.

In 2009, Hooker *et al.* tested two mathematical models to predict blood and tissue tension N_2 (P_{N2}) using field data from three beaked whale species: northern bottlenose whales, Cuvier's beaked whales, and Blainville's beaked whales. The researchers aimed to determine if physiology (body mass, diving lung volume, and dive response) or dive behavior (dive depth and duration, changes in ascent rate, and diel behavior) would lead to differences in P_{N2} levels and thereby decompression sickness risk between species. In their study, they compared results for previously published time depth recorder data (Hooker and Baird, 1999; Baird *et al.,* 2006, 2008) from Cuvier's beaked whale, Blainville's beaked whale, and northern bottlenose whale. They reported that diving lung volume and extent of the dive response had a large effect on end-dive P_{N2}. Also, results showed that dive profiles had a larger influence on end-dive P_{N2} than body mass differences between species. Despite diel changes (*i.e.,* variation that occurs regularly every day or most days) in dive behavior, P_{N2} levels showed no consistent trend. Model output suggested that all three species live with tissue P_{N2} levels that would cause a significant proportion of decompression sickness cases in terrestrial mammals. The authors concluded that the dive behavior of Cuvier's beaked whale was different from both Blainville's beaked whale and northern bottlenose whale, and resulted in higher predicted tissue and blood N_2 levels (Hooker *et al.,* 2009). They also suggested that the prevalence of Cuvier's beaked whales stranding after naval sonar exercises could be explained by either a higher abundance of this species in the affected areas or by possible species differences in behavior and/or physiology related to MF active sonar (Hooker *et al.,* 2009).

Bernaldo de Quiros *et al.* (2012) showed that, among stranded whales, deep diving species of whales had higher abundances of gas bubbles compared to shallow diving species. Kvadsheim *et al.* (2012) estimated blood and tissue P_{N2} levels in species representing shallow, intermediate, and deep diving cetaceans following behavioral responses to sonar and their comparisons found that deep diving species had higher end-dive blood and tissue N_2 levels, indicating a higher risk of developing gas bubble emboli compared with shallow diving species. Fahlmann *et al.* (2014) evaluated dive data recorded from sperm, killer, long-finned pilot, Blainville's beaked and Cuvier's beaked whales before and during exposure to low-frequency (1–2 kHz), as defined by the authors, and mid-frequency (2–7 kHz) active sonar in an attempt to determine if either differences in dive behavior or physiological responses to sonar are plausible risk factors for bubble formation. The authors suggested that CO_2 may initiate bubble formation and growth, while elevated levels of N_2 may be important for continued bubble growth. The authors also suggest that if CO_2 plays an important role in bubble formation, a cetacean escaping a sound source may experience increased metabolic rate, CO_2 production, and alteration in cardiac output, which could increase risk of gas bubble emboli. However, as discussed in Kvadsheim *et al.* (2012), the actual observed behavioral responses to sonar from the species in their study (sperm, killer, long-finned pilot, Blainville's beaked, and Cuvier's beaked whales) did not imply any significantly increased risk of decompression sickness due to high levels of N_2. Therefore, further information is needed to understand the relationship between exposure to stimuli, behavioral response (discussed in more detail below), elevated N_2 levels, and gas bubble emboli in marine mammals. The hypotheses for gas bubble formation related to beaked whale strandings is that beaked whales potentially have strong avoidance responses to MF active sonars because they sound similar to their main predator, the killer whale (Cox *et al.,* 2006; Southall *et al.,* 2007; Zimmer and Tyack, 2007; Baird *et al.,* 2008; Hooker *et al.,* 2009). Further investigation is needed to assess the potential validity of these hypotheses.

To summarize, while there are several hypotheses, there is little data directly connecting intense, anthropogenic underwater sounds with non-auditory physical effects in marine mammals. The available data do not support identification of a specific exposure level above which non-auditory effects can be expected (Southall *et al.,* 2007) or any meaningful quantitative predictions of the numbers (if any) of marine mammals that might be affected in these ways. In addition, such effects, if they occur at all, would be expected to be limited to situations where marine mammals are exposed to high powered sounds at very close range over a prolonged period of time, which is not expected to occur based on the speed of the vessels operating sonar in combination with the speed and behavior of marine mammals in the vicinity of sonar.

Injury Due to Sonar-Induced Acoustic Resonance

An object exposed to its resonant frequency will tend to amplify its vibration at that frequency, a phenomenon called acoustic resonance. Acoustic resonance has been proposed as a potential mechanism by which a sonar or sources with similar operating characteristics could damage tissues of marine mammals. In 2002, NMFS convened a panel of government and private scientists to investigate the potential for acoustic resonance to occur in marine mammals (NOAA, 2002). They modeled and evaluated the likelihood that Navy mid-frequency sonar (2–10 kHz) caused resonance effects in beaked whales that eventually led to their stranding. The workshop participants concluded that resonance in air-filled structures was not likely to have played a primary role in the Bahamas stranding in 2000. They listed several reasons supporting this finding including (among others): tissue displacements at resonance are estimated to be too small to cause tissue damage; tissue-lined air spaces most susceptible to resonance are too large in marine mammals to have resonant frequencies in the ranges used by mid-frequency or low-frequency sonar; lung resonant frequencies increase with depth, and tissue displacements decrease with depth so if resonance is more likely to be caused at depth it is also less likely to have an affect there; and lung tissue damage has not been observed in any mass, multi-species stranding of beaked whales. The frequency at which resonance was predicted to occur in the animals' lungs was 50 Hz, well below the frequencies used by the mid-frequency sonar systems associated with the Bahamas event. The workshop participants focused on the March 2000 stranding of beaked whales in the Bahamas as high-quality data were available, but the workshop report notes that the results apply to other sonar-related stranding events. For the reasons given by the

2002 workshop participants, we do not anticipate injury due to sonar-induced acoustic resonance from the Navy's planned activities.

Physiological Stress

There is growing interest in monitoring and assessing the impacts of stress responses to sound in marine animals. 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.

According to Moberg (2000), 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 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 and Rivest, 1991), altered metabolism (Elasser *et al.,* 2000), reduced immune competence (Blecha, 2000), and behavioral disturbance (Moberg, 1987; Blecha, 2000). 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 serious fitness consequences. 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 functions, which impairs those functions that experience the diversion. For example, when a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When 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'' (Seyle, 1950) or ''allostatic loading'' (McEwen and Wingfield, 2003). This pathological state of distress will last until the animal replenishes its energetic reserves sufficiently 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 are well-studied through controlled experiments in both laboratory and free-ranging 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). However, it should be noted (and as is described in additional detail in the 2020 GOA DSEIS/OEIS) that our understanding of the functions of various stress hormones (for example, cortisol), is based largely upon observations of the stress response in terrestrial mammals. Atkinson *et al.,* 2015 note that the endocrine response of marine mammals to stress may not be the same as that of terrestrial mammals because of the selective pressures marine mammals faced during their evolution in an ocean environment. For example, due to the necessity of breath-holding while diving and foraging at depth, the physiological role of epinephrine and norepinephrine (the catecholamines) in marine mammals might be different than in other mammals.

Marine mammals naturally experience stressors within their environment and as part of their life histories. Changing weather and ocean conditions, exposure to disease and naturally occurring toxins, lack of prey availability, and interactions with predators all contribute to the stress a marine mammal experiences (Atkinson *et al.,* 2015). Breeding cycles, periods of fasting, and social interactions with members of the same species are also stressors, although they are natural components of an animal's life history. Anthropogenic activities have the potential to provide additional stressors beyond those that occur naturally (Fair *et al.,* 2014; Meissner *et al.,* 2015; Rolland *et al.,* 2012). Anthropogenic stressors potentially include such things as fishery interactions, pollution, tourism, and ocean noise.

Acoustically induced stress in marine mammals is not well understood. There are ongoing efforts to improve our understanding of how stressors impact marine mammal populations (*e.g.,* King *et al.,* 2015; New *et al.,* 2013a; New *et al.,* 2013b; Pirotta *et al.,* 2015a), however little data exist on the consequences of sound-induced stress response (acute or chronic). Factors potentially affecting a marine mammal's response to a stressor include the individual's life history stage, sex, age, reproductive status, overall physiological and behavioral plasticity, and whether they are naïve or experienced with the sound (*e.g.,* prior experience with a stressor may result in a reduced response due to habituation (Finneran and Branstetter, 2013; St. Aubin and Dierauf, 2001). Stress responses due to exposure to anthropogenic sounds or other stressors and their effects on marine mammals have been reviewed (Fair and Becker, 2000; Romano *et al.,* 2002b) and, more rarely, studied in wild populations (*e.g.,* Romano *et al.,* 2002a). 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. These and other studies lead to a reasonable expectation that some marine mammals will experience physiological stress responses upon exposure to acoustic stressors and that it is possible that some of these would be classified as ''distress.'' In addition, any animal experiencing TTS would likely also experience stress responses (NRC, 2003).

Other research has also investigated the impact from vessels (both whale-watching and general vessel traffic noise), and demonstrated impacts do occur (Bain, 2002; Erbe, 2002; Lusseau, 2006; Williams *et al.,* 2006; Williams *et al.,* 2009; Noren *et al.,* 2009; Read *et al.,* 2014; Rolland *et al.,* 2012; Skarke *et al.,* 2014; Williams *et al.,* 2013; Williams *et al.,* 2014a; Williams *et al.,* 2014b; Pirotta *et al.,* 2015b). This body of research has generally investigated impacts associated with the presence of chronic stressors, which differ significantly from the proposed Navy training activities in the GOA Study Area. For example, in an analysis of energy costs to killer whales, Williams *et al.* (2009) suggested that whale-watching in Canada's Johnstone Strait resulted in lost feeding opportunities due to vessel disturbance, which could carry higher costs than other measures of behavioral change might suggest. Ayres *et al.* (2012) reported on research in the Salish Sea (Washington state) involving the measurement of southern resident killer whale fecal hormones to assess two potential threats to the species recovery: lack of prey (salmon) and impacts to behavior from vessel traffic. Ayres *et al.* (2012) suggested that the lack of prey overshadowed any population-level physiological impacts on southern resident killer whales from vessel traffic. 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 (NRC, 2005). The Office of Naval Research hosted a workshop (Effects of Stress on Marine Mammals Exposed to Sound) in 2009 that focused on this topic (ONR, 2009). Ultimately, the PCAD working group issued a report (Cochrem, 2014) that summarized information compiled from 239 papers or book chapters relating to stress in marine mammals and concluded that stress responses can last from minutes to hours and, while we typically focus on adverse stress responses, stress response is part of a natural process to help animals adjust to changes in their environment and can also be either neutral or beneficial.

Most sound-induced stress response studies in marine mammals have focused on acute responses to sound either by measuring catecholamines or by measuring heart rate as an assumed proxy for an acute stress response. Belugas demonstrated no catecholamine response to the playback of oil drilling sounds (Thomas *et al.,* 1990) but showed a small but statistically significant increase in catecholamines following exposure to impulsive sounds produced from a seismic water gun (Romano *et al.,* 2004). A bottlenose dolphin exposed to the same seismic water gun signals did not demonstrate a catecholamine response, but did demonstrate a statistically significant elevation in aldosterone (Romano *et al.,* 2004), albeit the increase was within the normal daily variation observed in this species (St. Aubin *et al.,* 1996). Increases in heart rate were observed in bottlenose dolphins to which known calls of other dolphins were played, although no increase in heart rate was observed when background tank noise was played back (Miksis *et al.,* 2001). Unfortunately, in this study, it cannot be determined whether the increase in heart rate was due to stress or an anticipation of being reunited with the dolphin to which the vocalization belonged. Similarly, a young beluga's heart rate was observed to increase during exposure to noise, with increases dependent upon the frequency band of noise and duration of exposure, and with a sharp decrease to normal or below normal levels upon cessation of the exposure (Lyamin *et al.,* 2011). Spectral analysis of heart rate variability corroborated direct measures of heart rate (Bakhchina *et al.,* 2017). This response might have been in part due to the conditions during testing, the young age of the animal, and the novelty of the exposure; a year later the exposure was repeated at a slightly higher received level and there was no heart rate response, indicating the beluga whale may have acclimated to the noise exposure. Kvadsheim *et al.* (2010) measured the heart rate of captive hooded seals during exposure to sonar signals and found an increase in the heart rate of the seals during exposure periods versus control periods when the animals were at the surface. When the animals dove, the normal dive-related bradycardia (decrease in heart rate) was not impacted by the sonar exposure. Elmegaard *et al.* (2021) found that sonar sweeps did not elicit a startle response in captive harbor porpoises, but initial exposures induced bradycardia, whereas impulse exposures induced startle responses without a change in heart rate. The authors suggested that the parasympathetic cardiac dive response may override any transient sympathetic response, or that diving mammals may not have the cardiac startle response seen in terrestrial mammals in order to maintain volitional cardiovascular control at depth. Similarly, Thompson *et al.* (1998) observed a rapid but short-lived decrease in heart rates in harbor and grey seals exposed to seismic air guns (cited in Gordon *et al.,* 2003). Williams *et al.* (2017) monitored the heart rates of narwhals released from capture and found that a profound dive bradycardia persisted, even though exercise effort increased dramatically as part of their escape response following release. Thus, although some limited evidence suggests that tachycardia might occur as part of the acute stress response of animals that are at the surface, the dive bradycardia persists during diving and might be enhanced in response to an acute stressor. Yang *et al.* (2021) measured cortisol concentrations in two bottlenose dolphins and found significantly higher concentrations after exposure to 140 dB re 1 μPa impulsive noise playbacks. Two out of six tested indicators of immune system function underwent acoustic dose-dependent changes, suggesting that repeated exposures or sustained stress response to impulsive sounds may increase an affected individual's susceptibility to pathogens. However, exposing dolphins to a different acoustic stressor yielded contrasting results. Houser *et al.* (2020) measured cortisol and epinephrine obtained from 30 bottlenose dolphins exposed to simulated U.S. Navy mid-frequency sonar and found no correlation between SPL and stress hormone levels. In the same experiment (Houser *et al.,* 2013b), behavioral responses were shown to increase in severity with increasing received SPLs. These results suggest that behavioral reactions to sonar signals are not necessarily indicative of a hormonal stress response. Houser *et al.* (2020) notes that additional research is needed to determine the relationship between behavioral responses and physiological responses.

Despite the limited amount of data available on sound-induced stress responses for marine mammals exposed to anthropogenic sounds, studies of other marine animals and terrestrial animals would also lead us to expect that some marine mammals 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 *(e.g.,* 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 physiological stress responses of endangered Sonoran pronghorn to military overflights. However, take due to aircraft noise is not anticipated as a result of the Navy's activities. 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.

Auditory Masking

Sound can disrupt behavior through masking, or interfering with, an animal's ability to detect, recognize, or discriminate between acoustic signals of interest (*e.g.,* those used for intraspecific communication and social interactions, prey detection, predator avoidance, or navigation) (Richardson *et al.,* 1995; Erbe and Farmer, 2000; Tyack, 2000; Erbe *et al.,* 2016). Masking occurs when the receipt of a sound is interfered with by another coincident sound at similar frequencies and at similar or higher intensity, and may occur whether the sound is natural (*e.g.,* snapping shrimp, wind, waves, precipitation) or anthropogenic (*e.g.,* shipping, sonar, seismic exploration) in origin. As described in detail in the 2020 GOA DSEIS/OEIS, the ability of a noise source to mask biologically important sounds depends on the characteristics of both the noise source and the signal of interest (*e.g.,* signal-to-noise ratio, temporal variability, direction), in relation to each other and to an animal's hearing abilities (*e.g.,* sensitivity, frequency range, critical ratios, frequency discrimination, directional discrimination, age, or TTS hearing loss), and existing ambient noise and propagation conditions. Masking these acoustic signals can disturb the behavior of individual animals, groups of animals, or entire populations. Masking can lead to behavioral changes including vocal changes (*e.g.,* Lombard effect, increasing amplitude, or changing frequency), cessation of foraging, and leaving an area, to both signalers and receivers, in an attempt to compensate for noise levels (Erbe *et al.,* 2016).

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.

Under certain circumstances, marine mammals experiencing significant masking could also be impaired from maximizing their performance fitness in survival and reproduction. Therefore, when the coincident (masking) sound is man-made, it may be considered harassment when disrupting natural behavioral patterns to the point where the behavior is abandoned or significantly altered. It is important to distinguish TTS and PTS, which persist after the sound exposure, from masking, which only occurs during the sound exposure. Because masking (without resulting in threshold shift) is not associated with abnormal physiological function, it is not considered a physiological effect, but rather a potential behavioral effect.

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 (including critical ratios, or the lowest signal-to-noise ratio in which animals can detect a signal, Finneran and Branstetter, 2013; Johnson *et al.,* 1989; Southall *et al.,* 2000) 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 frequency range of the potentially masking sound is important in determining any potential behavioral impacts. For example, low-frequency signals may have less effect on high-frequency echolocation sounds produced by odontocetes but are more likely to affect detection of mysticete communication calls and other potentially important natural sounds such as those produced by surf and some prey species. The masking of communication signals by anthropogenic noise may be considered as a reduction in the communication space of animals (*e.g.,* Clark *et al.,* 2009; Matthews *et al.,* 2016) and may result in energetic or other costs as animals change their vocalization behavior (*e.g.,* Miller *et al.,* 2000; Foote *et al.,* 2004; Parks *et al.,* 2007; Di Iorio and Clark, 2009; Holt *et al.,* 2009). Masking can be reduced in situations where the signal and noise come from different directions (Richardson *et al.,* 1995), through amplitude modulation of the signal, or through other compensatory behaviors (Houser and Moore, 2014). Masking can be tested directly in captive species (*e.g.,* Erbe, 2008), but in wild populations it must be either modeled or inferred from evidence of masking compensation. There are few studies addressing real-world masking sounds likely to be experienced by marine mammals in the wild (*e.g.,* Branstetter *et al.,* 2013).

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 study by Nachtigall and Supin (2018) showed that false killer whales adjust their hearing to compensate for ambient sounds and the intensity of returning echolocation signals.

Impacts on signal detection, measured by masked detection thresholds, are not the only important factors to address when considering the potential effects of masking. As marine mammals use sound to recognize conspecifics, prey, predators, or other biologically significant sources (Branstetter *et al.,* 2016), it is also important to understand the impacts of masked recognition thresholds (often called ''informational masking''). Branstetter *et al.,* 2016 measured masked recognition thresholds for whistle-like sounds of bottlenose dolphins and observed that they are approximately 4 dB above detection thresholds (energetic masking) for the same signals. Reduced ability to recognize a conspecific call or the acoustic signature of a predator could have severe negative impacts. Branstetter *et al.,* 2016 observed that if ''quality communication'' is set at 90 percent recognition the output of communication space models (which are based on 50 percent detection) would likely result in a significant decrease in communication range.

As marine mammals use sound to recognize predators (Allen *et al.,* 2014; Cummings and Thompson, 1971; Curé

et al., 2015; Fish and Vania, 1971), the presence of masking noise may also prevent marine mammals from responding to acoustic cues produced by their predators, particularly if it occurs in the same frequency band. For example, harbor seals that reside in the coastal waters off British Columbia are frequently targeted by mammal-eating killer whales. The seals acoustically discriminate between the calls of mammal-eating and fish-eating killer whales (Deecke *et al.,* 2002), a capability that should increase survivorship while reducing the energy required to attend to all killer whale calls. Similarly, sperm whales (Curé *et al.,* 2016; Isojunno *et al.,* 2016), long-finned pilot whales (Visser *et al.,* 2016), and humpback whales (Curé *et al.,* 2015) changed their behavior in response to killer whale vocalization playbacks; these findings indicate that some recognition of predator cues could be missed if the killer whale vocalizations were masked. The potential effects of masked predator acoustic cues depends on the duration of the masking noise and the likelihood of a marine mammal encountering a predator during the time that detection and recognition of predator cues are impeded.

Redundancy and context can also facilitate detection of weak signals. These phenomena may help marine mammals detect weak sounds in the presence of natural or manmade noise. Most masking studies in marine mammals present the test signal and the masking noise from the same direction. The dominant background noise may be highly directional if it comes from a particular anthropogenic source such as a ship or industrial site. Directional hearing may significantly reduce the masking effects of these sounds by improving the effective signal-to-noise ratio.

Masking affects both senders and receivers of acoustic signals and can potentially have long-term chronic effects on marine mammals at the population level as well as at the individual level. Low-frequency ambient sound levels have increased by as much as 20 dB (more than three times in terms of SPL) in the world's ocean from pre-industrial periods, with most of the increase from distant commercial shipping (Hildebrand, 2009). All anthropogenic sound sources, but especially chronic and lower-frequency signals (*e.g.,* from commercial vessel traffic), contribute to elevated ambient sound levels, thus intensifying masking.

Impaired Communication

In addition to making it more difficult for animals to perceive and recognize 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'' (or communication 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). 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 species 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 (repetition rate), or may cease to vocalize.

Many animals will combine several of these strategies to compensate for high levels of background noise. Although the fitness consequences of vocal adjustments are not directly known in all instances, like most other trade-offs animals must make, some of these strategies probably come at a cost (Patricelli *et al.,* 2006). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996). For example, in birds, 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).

Marine mammals are also known to make vocal changes in response to anthropogenic noise. In cetaceans, vocalization changes have been reported from exposure to anthropogenic noise sources such as sonar, vessel noise, and seismic surveying (see the following for examples: Gordon *et al.,* 2003; Di Iorio and Clark, 2010; Hatch *et al.,* 2012; Holt *et al.,* 2008; Holt *et al.,* 2011; Lesage *et al.,* 1999; McDonald *et al.,* 2009; Parks *et al.,* 2007, Risch *et al.,* 2012, Rolland *et al.,* 2012), as well as changes in the natural acoustic environment (Caruso *et al.,* 2020; Dunlop *et al.,* 2014; Helble *et al.,* 2020). Vocal changes can be temporary, or can be persistent. For example, model simulation suggests that the increase in starting frequency for the North Atlantic right whale upcall over the last 50 years resulted in increased detection ranges between right whales. The frequency shift, coupled with an increase in call intensity by 20 dB, led to a call detectability range of less than 3 km to over 9 km (Tennessen and Parks, 2016). Holt *et al.* (2008) measured killer whale call source levels and background noise levels in the one to 40 kHz band and reported that the whales increased their call source levels by one dB SPL for every one dB SPL increase in background noise level. Similarly, another study on St. Lawrence River belugas reported a similar rate of increase in vocalization activity in response to passing vessels (Scheifele *et al.,* 2005). Di Iorio and Clark (2010) showed that blue whale calling rates vary in association with seismic sparker survey activity, with whales calling more on days with surveys than on days without surveys. They suggested that the whales called more during seismic survey periods as a way to compensate for the elevated noise conditions.

In some cases, these vocal changes may have fitness consequences, such as an increase in metabolic rates and oxygen consumption, as observed in bottlenose dolphins when increasing their call amplitude (Holt *et al.,* 2015). A switch from vocal communication to physical, surface-generated sounds such as pectoral fin slapping or breaching was observed for humpback whales in the presence of increasing natural background noise levels, indicating that adaptations to masking may also move beyond vocal modifications (Dunlop *et al.,* 2010).

While these changes all represent possible tactics by the sound-producing animal to reduce the impact of masking, the receiving animal can also reduce masking by using active listening strategies such as orienting to the sound source, moving to a quieter location, or reducing self-noise from hydrodynamic flow by remaining still. The temporal structure of noise (*e.g.,* amplitude modulation) may also provide a considerable release from masking through comodulation masking release (a reduction of masking that occurs when broadband noise, with a frequency spectrum wider than an animal's auditory filter bandwidth at the

frequency of interest, is amplitude modulated) (Branstetter and Finneran, 2008; Branstetter *et al.,* 2013). Signal type (*e.g.,* whistles, burst-pulse, sonar clicks) and spectral characteristics (*e.g.,* frequency modulated with harmonics) may further influence masked detection thresholds (Branstetter *et al.,* 2016; Cunningham *et al.,* 2014).

Masking Due to Sonar and Other Transducers

The functional hearing ranges of mysticetes, odontocetes, and pinnipeds underwater overlap the frequencies of the sonar sources used in the Navy's low-frequency active sonar (LFAS)/mid-frequency active sonar (MFAS)/high-frequency active sonar (HFAS) training exercises (though the Navy proposes no LFAS use for the activities in this rulemaking). Additionally, almost all affected 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. Masking by mid-frequency active sonar (MFAS) with relatively low-duty cycles is not anticipated (or would be of very short duration) for most cetaceans as sonar signals occur over a relatively short duration and narrow bandwidth (overlapping with only a small portion of the hearing range). While dolphin whistles and MFAS are similar in frequency, masking is not anticipated (or would be of very short duration) due to the low-duty cycle of most sonars.

As described in the 2020 GOA DSEIS/OEIS, newer high-duty cycle or continuous active sonars have more potential to mask vocalizations. These sonars transmit more frequently (greater than 80 percent duty cycle) than traditional sonars, but at a substantially lower source level. HFAS, such as pingers that operate at higher repetition rates (*e.g.,* 2–10 kHz with harmonics up to 19 kHz, 76 to 77 pings per minute) (Culik *et al.,* 2001), also operate at lower source levels and have faster attenuation rates due to the higher frequencies used. These lower source levels limit the range of impacts, however compared to traditional sonar systems, individuals close to the source are likely to experience masking at longer time scales. The frequency range at which high-duty cycle systems operate overlaps the vocalization frequency of many mid-frequency cetaceans. Continuous noise at the same frequency of communicative vocalizations may cause disruptions to communication, social interactions, acoustically mediated cooperative behaviors, and important environmental cues. There is also the potential for the mid-frequency sonar signals to mask important environmental cues (*e.g.,* predator or conspecific acoustic cues), possibly affecting survivorship for targeted animals. Masking due to high duty cycle sonars is likely analogous to masking produced by other continuous sources (*e.g.,* vessel noise and low-frequency cetaceans), and would likely have similar short-term consequences, though longer in duration due to the duration of the masking noise. A study by von Benda-Beckmann *et al.* (2021) modeled the effect of pulsed and continuous 1–2 kHz active sonar on sperm whale echolocation clicks, and found that the presence of upper harmonics in the sonar signal increased masking of clicks produced in the search phase of foraging compared to buzz clicks produced during prey capture. Different levels of sonar caused intermittent to continuous masking (120 to 160 dB re 1 μPa2, respectively), but varied based on click level, whale orientation, and prey target strength. Continuous active sonar resulted in a greater percentage of time that echolocation clicks were masked compared to pulsed active sonar. Other short-term consequences may include changes to vocalization amplitude and frequency (Brumm and Slabbekoorn, 2005; Hotchkin and Parks, 2013) and behavioral impacts such as avoidance of the area and interruptions to foraging or other essential behaviors (Gordon *et al.,* 2003; Isojunno *et al.,* 2021). Long-term consequences could include changes to vocal behavior and vocalization structure (Foote *et al.,* 2004; Parks *et al.,* 2007), abandonment of habitat if masking occurs frequently enough to significantly impair communication (Brumm and Slabbekoorn, 2005), a potential decrease in survivorship if predator vocalizations are masked (Brumm and Slabbekoorn, 2005), and a potential decrease in recruitment if masking interferes with reproductive activities or mother-calf communication (Gordon *et al.,* 2003).

Masking Due to Vessel Noise

Masking is more likely to occur in the presence of broadband, relatively continuous noise sources such as vessels. Several studies have shown decreases in marine mammal communication space and changes in behavior as a result of the presence of vessel noise. For example, right whales were 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) as well as increasing the amplitude (intensity) of their calls (Parks, 2009; Parks *et al.,* 2011). Fournet *et al.* (2018) observed that humpback whales in Alaska responded to increasing ambient sound levels (natural and anthropogenic) by increasing the source levels of their calls (non-song vocalizations). Clark *et al.* (2009) also observed that right whales communication space decreased by up to 84 percent in the presence of vessels (Clark *et al.,* 2009). Cholewiak *et al.* (2018) also observed loss in communication space in Stellwagen National Marine Sanctuary for North Atlantic right whales, fin whales, and humpback whales with increased ambient noise and shipping noise. Gabriele *et al.* (2018) modeled the effects of vessel traffic sound on communication space in Glacier Bay National Park in Alaska and found that typical summer vessel traffic in the National Park causes losses of communication space to singing whales (reduced by 13–28 percent), calling whales (18–51 percent), and roaring seals (32–61 percent), particularly during daylight hours and even in the absence of cruise ships. Dunlop (2019) observed that an increase in vessel noise reduced modelled communication space and resulted in significant reduction in group social interactions in Australian humpback whales. However, communication signal masking did not fully explain this change in social behavior in the model, indicating there may also be an additional effect of the physical presence of the vessel on social behavior (Dunlop, 2019). Although humpback whales off Australia did not change the frequency or duration of their vocalizations in the presence of ship noise, their source levels were lower than expected based on source level changes to wind noise, potentially indicating some signal masking (Dunlop, 2016). Multiple delphinid species have also been shown to increase the minimum or maximum frequencies of their whistles in the presence of anthropogenic noise and reduced communication space (for examples see: Holt *et al.,* 2008; Holt *et al.,* 2011; Gervaise *et al.,* 2012; Williams *et al.,* 2013; Hermannsen *et al.,* 2014; Papale *et al.,* 2015; Liu *et al.,* 2017; Pine *et al.,* 2021).

Behavioral Response/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 affects whether it is less likely (habituation) or more likely (sensitization) to respond to certain sounds in the future (animals

can also be innately predisposed 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), the 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; DeRuiter *et al.,* 2013). 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. For example, Goldbogen *et al.* (2013) demonstrated that individual behavioral state was critically important in determining response of blue whales to sonar, noting that some individuals engaged in deep (≤50 m) feeding behavior had greater dive responses than those in shallow feeding or non-feeding conditions. Some blue whales in the Goldbogen *et al.* (2013) study that were engaged in shallow feeding behavior demonstrated no clear changes in diving or movement even when received levels (RLs) were high (~160 dB re: 1μPa) for exposures to 3–4 kHz sonar signals, while others showed a clear response at exposures at lower received levels of sonar and pseudorandom noise.

Studies by DeRuiter *et al.* (2012) indicate that variability of responses to acoustic stimuli depends not only on the species receiving the sound and the sound source, but also on the social, behavioral, or environmental contexts of exposure. Another study by DeRuiter *et al.* (2013) examined behavioral responses of Cuvier's beaked whales to MF sonar and found that whales responded strongly at low received levels (RL of 89–127 dB re: 1μPa) by ceasing normal fluking and echolocation, swimming rapidly away, and extending both dive duration and subsequent non-foraging intervals when the sound source was 3.4–9.5 km away. Importantly, this study also showed that whales exposed to a similar range of received levels (78–106 dB re: 1 μPa) from distant sonar exercises (118 km away) did not elicit such responses, suggesting that context may moderate reactions.

Ellison *et al.* (2012) outlined an approach to assessing the effects of sound on marine mammals that incorporates contextual-based factors. The authors recommend considering not just the received level of sound, but also the activity the animal is engaged in at the time the sound is received, the nature and novelty of the sound (*i.e.,* is this a new sound from the animal's perspective), and the distance between the sound source and the animal. They submit that this ''exposure context,'' as described, greatly influences the type of behavioral response exhibited by the animal. Forney *et al.* (2017) also point out that an apparent lack of response (*e.g.,* no displacement or avoidance of a sound source) may not necessarily mean there is no cost to the individual or population, as some resources or habitats may be of such high value that animals may choose to stay, even when experiencing stress or hearing loss. Forney *et al.* (2017) recommend considering both the costs of remaining in an area of noise exposure such as TTS, PTS, or masking, which could lead to an increased risk of predation or other threats or a decreased capability to forage, and the costs of displacement, including potential increased risk of vessel strike, increased risks of predation or competition for resources, or decreased habitat suitable for foraging, resting, or socializing. This sort of contextual information is challenging to predict with accuracy for ongoing activities that occur over large spatial and temporal expanses. However, distance is one contextual factor for which data exist to quantitatively inform a take estimate, and the method for predicting Level B harassment in this rule does consider distance to the source. Other factors are often considered qualitatively in the analysis of the likely consequences of sound exposure, where supporting information is available.

Friedlaender *et al.* (2016) provided the first integration of direct measures of prey distribution and density variables incorporated into across-individual analyses of behavior responses of blue whales to sonar, and demonstrated a five-fold increase in the ability to quantify variability in blue whale diving behavior. These results illustrate that responses evaluated without such measurements for foraging animals may be misleading, which again illustrates the context-dependent nature of the probability of response.

Exposure of marine mammals to sound sources can result in, but is not limited to, no response or any of the following observable responses: 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; Southall *et al.,* 2021). A review of marine mammal responses to anthropogenic sound was first conducted by Richardson (1995). More recent reviews (Nowacek *et al.,* 2007; DeRuiter *et al.,* 2012 and 2013; Ellison *et al.,* 2012; Gomez *et al.,* 2016) address studies conducted since 1995 and focused on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated. Gomez *et al.* (2016) conducted a review of the literature considering the contextual information of exposure in addition to received level and found that higher received levels were not always associated with more severe behavioral responses and vice versa. Southall *et al.* (2016) states that results demonstrate that some individuals of different species display clear yet varied responses, some of which have negative implications, while others appear to tolerate high levels, and that responses may not be fully predictable with simple acoustic exposure metrics (*e.g.,* received sound level). Rather, the authors state that differences among species and individuals along with contextual aspects of exposure (*e.g.,* behavioral state) appear to affect response probability.

Sperm whales were exposed to pulsed active sonar (1–2 kHz) at moderate source levels and high source levels, as well as continuously active sonar at moderate levels for which the summed energy (SEL) equaled the summed energy of the high source level pulsed sonar (Isojunno *et al.,* 2020). Foraging behavior did not change during exposures to moderate source level sonar, but non-foraging behavior increased during exposures to high source level sonar and to the continuous sonar, indicating that the energy of the sound (the SEL) was a better predictor of response than SPL. However, the time of day of the exposure was also an important covariate in determining the amount of non-foraging behavior, as were order effects (*e.g.* the SEL of the previous exposure). Isojunno *et al.* (2021) found that higher SELs reduced

sperm whale buzzing (*i.e.,* foraging). Duration of continuous sonar activity also appears to impact sperm whale displacement and foraging activity (Stanistreet, 2022). During long bouts of sonar lasting up to 13 consecutive hours, occurring repeatedly over an 8 day naval exercise (median and maximum SPL = 120 dB and 164 dB), sperm whales substantially reduced how often they produced clicks during sonar, indicating a decrease or cessation in foraging behavior. Few previous studies have shown sustained changes in sperm whales, but there was an absence of sperm whale clicks for 6 consecutive days of sonar activity. Curé *et al.* (2021) also found that sperm whales exposed to continuous and pulsed active sonar were more likely to produce low or medium severity responses with higher cumulative SEL. Specifically, the probability of observing a low severity response increased to 0.5 at approximately 173 dB SEL and observing a medium severity response reached a probability of 0.35 at cumulative SELs between 179 and 189 dB. These results again demonstrate that the behavioral state and environment of the animal mediates the likelihood of a behavioral response, as do the characteristics (*e.g.,* frequency, energy level) of the sound source itself.

The following subsections 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. 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, along with contextual factors.

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. The flight response differs from other avoidance responses in the intensity of the response (*e.g.,* directed movement, rate of travel). 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). The result of a flight response could range from brief, temporary exertion and displacement from the area where the signal provokes flight to, in extreme cases, being a component of marine mammal strandings associated with sonar activities (Evans and England, 2001). If marine mammals respond to Navy vessels that are 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). There are limited data on flight response for marine mammals in water; however, there are examples of this response in species on land. For instance, the probability of flight responses in Dall's sheep *Ovis dalli dalli* (Frid, 2001), hauled-out ringed seals *Phoca hispida* (Born *et al.,* 1999), Pacific brant (*Branta bernicl nigricans*), and Canada geese (*B. canadensis*) increased as a helicopter or fixed-wing aircraft more directly approached groups of these animals (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).

Response to Predator

As discussed earlier, 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.

Alteration of Diving or Movement

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 (*e.g.,* Frankel and Clark, 2000; Ng and Leung, 2003; Nowacek *et al.* 2004; Goldbogen *et al.,* 2013a, 2013b). 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). Arranz *et al.* (2021) attempted to distinguish effects of vessel noise from vessel presence by conducting a noise exposure experiment which compared behavioral reactions of resting short-finned pilot whale mother-calf pairs during controlled approaches by a tour boat with two electric (136–140 dB) or petrol engines (139–150 dB). Approach speed (<4 knots), distance of passes (60 m), and vessel features other than engine noise remained the same between the two experimental conditions. Behavioral data was collected via unmanned aerial vehicle and activity budgets were calculated from continuous focal follows. Mother pilot whales rested less and calves nursed less in response to both types of boat engines compared to control conditions (vessel >300 m, stationary in neutral). However, they found no significant impact on whale behaviors when the boat approached with the quieter electric engine, while resting

behavior decreased 29 percent and nursing decreased 81 percent when the louder petrol engine was installed in the same vessel. 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. Lastly, as noted previously, DeRuiter *et al.* (2013) noted that distance from a sound source may moderate marine mammal reactions in their study of Cuvier's beaked whales, which showed the whales swimming rapidly and silently away when a sonar signal was 3.4–9.5 km away while showing no such reaction to the same signal when the signal was 118 km away even though the received levels were similar.

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. As for other types of behavioral response, the frequency, duration, and temporal pattern of signal presentation, as well as differences in species sensitivity, are likely contributing factors to differences in response in any given circumstance (*e.g.,* Croll *et al.,* 2001; Harris *et al.,* 2017; Madsen *et al.,* 2006a; Nowacek *et al.;* 2004; Yazvenko *et al.,* 2007). A determination of whether foraging disruptions incur fitness consequences would require information on or estimates of the energetic requirements of the affected individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Southall *et al.* (2019a) found that prey availability was higher in the western area of the Southern California Offshore Range where Cuvier's beaked whales preferentially occurred, while prey resources were lower in the eastern area and moderate in the area just north of the Range. This high prey availability may indicate that fewer foraging dives are needed to meet metabolic energy requirements than would be needed in another area with fewer resources. Benoit-Bird *et al.* (2020) demonstrated that differences in squid distribution could be a substantial factor for beaked whales' habitat preference. The researchers suggest that this be considered when comparing beaked whale habitat use both on and off Navy ranges.

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). Visual tracking, passive acoustic monitoring, and movement recording tags were used to quantify sperm whale behavior prior to, during, and following exposure to air gun arrays at received levels in the range of 140–160 dB at distances of 7–13 km, following a phase-in of sound intensity and full array exposures at 1–13 km (Madsen *et al.,* 2006a; Miller *et al.,* 2009). Sperm whales did not exhibit horizontal avoidance behavior at the surface. However, foraging behavior may have been affected. The sperm whales exhibited 19 percent less vocal (buzz) rate during full exposure relative to post exposure, and the whale that was approached most closely had an extended resting period and did not resume foraging until the air guns had ceased firing. The remaining whales continued to execute foraging dives throughout exposure; however, swimming movements during foraging dives were six percent lower during exposure than control periods (Miller *et al.,* 2009). These data raise concerns that air gun surveys may impact foraging behavior in sperm whales, although more data are required to understand whether the differences were due to exposure or natural variation in sperm whale behavior (Miller *et al.,* 2009).

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 SPLs 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. Blue whales exposed to mid-frequency sonar in the Southern California Bight were less likely to produce low frequency calls usually associated with feeding behavior (Melcón *et al.,* 2012). However, Melcón *et al.* (2012) were unable to determine if suppression of low frequency calls reflected a change in their feeding performance or abandonment of foraging behavior and indicated that implications of the documented responses are unknown. Further, it is not known whether the lower rates of calling actually indicated a reduction in feeding behavior or social contact since the study used data from remotely deployed, passive acoustic monitoring buoys. In contrast, blue whales increased their likelihood of calling when ship noise was present, and decreased their likelihood of calling in the presence of explosive noise, although this result was not statistically significant (Melcón *et al.,* 2012). Additionally, the likelihood of an animal calling decreased with the increased received level of mid-frequency sonar, beginning at a SPL of approximately 110–120 dB re: 1 μPa (Melcón *et al.,* 2012). Results from behavioral response studies in Southern California waters indicated that, in some cases and at low received levels, tagged blue whales responded to mid-frequency sonar but that those responses were generally brief, of low to moderate severity, and highly dependent on exposure context (Southall *et al.,* 2011; Southall *et al.,* 2012b; Southall *et al.,* 2019b). 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 will help better inform a determination of whether foraging disruptions incur fitness consequences. Surface feeding blue whales did not show a change in behavior in response to mid-frequency simulated and real sonar sources with received levels between 90 and 179 dB re: 1 μPa, but deep feeding and non-feeding whales showed temporary reactions including cessation of feeding, reduced initiation of deep foraging dives, generalized avoidance responses, and changes to dive behavior. The behavioral responses the researchers observed were generally brief, of low to moderate severity, and highly dependent on exposure context (behavioral state, source-to-whale horizontal range, and prey availability) (DeRuiter *et al.,* 2017; Goldbogen *et al.,* 2013b; Sivle *et al.,* 2015). Goldbogen *et al.* (2013b) indicate that disruption of feeding and displacement could impact individual fitness and health. However, for this to be true, we would have to assume that an individual whale could not compensate for this lost feeding opportunity by either immediately feeding at another location, by feeding shortly after cessation of acoustic exposure, or by feeding at a later time. There is no indication this is the case, particularly since unconsumed prey would likely still be available in the environment in most cases following the cessation of acoustic exposure.

Similarly, while the rates of foraging lunges decrease in humpback whales due to sonar exposure, there was variability in the response across individuals, with one animal ceasing to forage completely and another animal starting to forage during the exposure (Sivle *et al.,* 2016). In addition, almost half of the animals that exhibited avoidance behavior were foraging before the exposure but the others were not; the animals that exhibited avoidance behavior while not feeding responded at a slightly lower received level and greater distance than those that were feeding (Wensveen *et al.,* 2017). These findings indicate that the behavioral state of the animal plays a role in the type and severity of a behavioral response. In fact, when the prey field was mapped and used as a covariate in similar models looking for a response in the same blue whales, the response in deep-feeding behavior by blue whales was even more apparent, reinforcing the need for contextual variables to be included when assessing behavioral responses (Friedlaender *et al.,* 2016).

Breathing

Respiration naturally varies 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). Harbor porpoises did not respond to the low-duty cycle mid-frequency tones at any received level, but one did respond to the high-duty cycle signal with more jumping and increased respiration rates (Kastelein *et al.,* 2018b). Harbor porpoises responded to seal scarers with broadband signals up to 44 kHz with a slight respiration response at 117 dB re 1 μPa and an avoidance response at 139 dB re 1 μPa, but another scarer with a fundamental (strongest) frequency of 18 kHz did not have an avoidance response until 151 dB re 1 μPa (Kastelein *et al.,* 2015e). 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. Lastly, Kastelein *et al.* (2019a) examined the potential masking effect of high sea state ambient noise on captive harbor porpoise perception of and response to high duty cycle playbacks of AN/SQS–53C sonar signals by observing their respiration rates. Results indicated that sonar signals were not masked by the high sea state noise, and received levels at which responses were observed were similar to those observed in prior studies of harbor porpoise behavior.

Pilot whales exhibited reduced breathing rates relative to their diving behavior when the low frequency active sonar levels were high (reaching 180 dB re 1 μPa), but only on the first sonar exposure; on subsequent exposures their breathing rates increased (Isojunno *et al.,* 2018), indicating a change in response tactic with additional exposures.

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.,* avoidance, masking, *etc.*). Sperm whales responded to military sonar, apparently from a submarine, by dispersing from social aggregations, moving away from the sound source, remaining relatively silent, and becoming difficult to approach (Watkins *et al.,* 1985). In contrast, sperm whales in the Mediterranean that were exposed to submarine sonar continued calling (J. Gordon pers. comm. cited in Richardson *et al.,* 1995). Long-finned pilot whales exposed to three types of disturbance—playbacks of killer whale sounds, naval sonar exposure, and tagging—resulted in increased group sizes (Visser *et al.,* 2016). In response to sonar, pilot whales also spent more time at the surface with other members of the group (Visser *et al.,* 2016). However, social disruptions must be considered in context of the relationships that are affected. While some disruptions may not have deleterious effects, others, such as long-term or repeated disruptions of mother/calf pairs or interruption of mating behaviors, have the potential to affect the growth and survival or reproductive effort/success of individuals.

Vocalizations (Also see Auditory 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 in vocalization behavior that may result in response to anthropogenic noise can occur for any of these modes and may result from a need to compete with an increase in background noise or may reflect an increased vigilance or a startle response. For example, in the presence of potentially masking signals (low-frequency active sonar), humpback whales have been observed to increase the length of their songs (Miller *et al.,* 2000; Fristrup *et al.,* 2003). 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; Rolland *et al.,* 2012). 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; NOAA, 2014). 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.

Cerchio *et al.* (2014) used passive acoustic monitoring to document the presence of singing humpback whales off the coast of northern Angola and to opportunistically test for the effect of seismic survey activity on the number of singing whales. Two recording units were deployed between March and December 2008 in the offshore environment; numbers of singers were counted every hour. Generalized Additive Mixed Models were used to assess the effect of survey day (seasonality), hour (diel variation), moon phase, and received levels of noise (measured from a single pulse during each ten-minute sampled period) on singer number. The number of singers significantly decreased with increasing received level of noise, suggesting that humpback whale

communication was disrupted to some extent by the survey activity.

Castellote *et al.* (2012) reported acoustic and behavioral changes by fin whales in response to shipping and air gun noise. Acoustic features of fin whale song notes recorded in the Mediterranean Sea and northeast Atlantic Ocean were compared for areas with different shipping noise levels and traffic intensities and during an air gun survey. During the first 72 hours of the survey, a steady decrease in song received levels and bearings to singers indicated that whales moved away from the acoustic source and out of a Navy study area. This displacement persisted for a time period well beyond the 10-day duration of air gun activity, providing evidence that fin whales may avoid an area for an extended period in the presence of increased noise. The authors hypothesize that fin whale acoustic communication is modified to compensate for increased background noise and that a sensitization process may play a role in the observed temporary displacement.

Seismic pulses at average received levels of 131 dB re 1 μPa^2-s caused blue whales to increase call production (Di Iorio and Clark, 2010). In contrast, McDonald *et al.* (1995) tracked a blue whale with seafloor seismometers and reported that it stopped vocalizing and changed its travel direction at a range of 10 km from the seismic vessel (estimated received level 143 dB re: 1 μPa peak-to-peak). Blackwell *et al.* (2013) found that bowhead whale call rates dropped significantly at onset of air gun use at sites with a median distance of 41–45 km from the survey. Blackwell *et al.* (2015) expanded this analysis to show that whales actually increased calling rates as soon as air gun signals were detectable before ultimately decreasing calling rates at higher received levels (*i.e.,* 10-minute cumulative sound exposure level (cSEL) of ~127 dB). Overall, these results suggest that bowhead whales may adjust their vocal output in an effort to compensate for noise before ceasing vocalization effort and ultimately deflecting from the acoustic source (Blackwell *et al.,* 2013, 2015). Captive bottlenose dolphins sometimes vocalized after an exposure to impulse sound from a seismic water gun (Finneran *et al.,* 2010a). These studies demonstrate that even low levels of noise received far from the noise source can induce changes in vocalization and/or behavioral responses.

Avoidance

Avoidance is the displacement of an individual from an area or migration path as a result of the presence of a sound or other stressors. Richardson *et al.* (1995) noted that avoidance reactions are the most obvious manifestations of disturbance in marine mammals. Avoidance 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. 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; Kastelein *et al.,* 2015d; Kastelein *et al.,* 2015e; Kastelein *et al.,* 2018b). 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; Hiley *et al.,* 2021) and to some extent in mysticetes (Gailey *et al.,* 2007). Longer-term displacement is possible, however, which may lead to changes in abundance or distribution patterns of the affected species in the affected region if habituation to the presence of the sound does not occur (*e.g.,* Blackwell *et al.,* 2004; Bejder *et al.,* 2006; Teilmann *et al.,* 2006). 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). Gray whales have been reported deflecting from customary migratory paths in order to avoid noise from air gun surveys (Malme *et al.,* 1984). Humpback whales showed avoidance behavior in the presence of an active air gun array during observational studies and controlled exposure experiments in western Australia (McCauley *et al.,* 2000a).

As discussed earlier, Forney *et al.* (2017) detailed the potential effects of noise on marine mammal populations with high site fidelity, including displacement and auditory masking, noting that a lack of observed response does not imply absence of fitness costs and that apparent tolerance of disturbance may have population-level impacts that are less obvious and difficult to document. Avoidance of overlap between disturbing noise and areas and/or times of particular importance for sensitive species may be critical to avoiding population-level impacts because (particularly for animals with high site fidelity) there may be a strong motivation to remain in the area despite negative impacts. Forney *et al.* (2017) stated that, for these animals, remaining in a disturbed area may reflect a lack of alternatives rather than a lack of effects. The authors discuss several case studies, including western Pacific gray whales, which are a small population of mysticetes believed to be adversely affected by oil and gas development off Sakhalin Island, Russia (Weller *et al.,* 2002; Reeves *et al.,* 2005). Western gray whales display a high degree of interannual site fidelity to the area for foraging purposes, and observations in the area during air gun surveys have shown the potential for harm caused by displacement from such an important area (Weller *et al.,* 2006; Johnson *et al.,* 2007). Forney *et al.* (2017) also discuss beaked whales, noting that anthropogenic effects in areas where they are resident could cause severe biological consequences, in part because displacement may adversely affect foraging rates, reproduction, or health, while an overriding instinct to remain could lead to more severe acute effects.

In 1998, the Navy conducted a Low Frequency Sonar Scientific Research Program (LFS SRP) specifically to study behavioral responses of several species of marine mammals to exposure to LF sound, including one phase that focused on the behavior of gray whales to low frequency sound signals. The objective of this phase of the LFS SRP was to determine whether migrating gray whales respond more strongly to received levels, sound gradient, or distance from the source, and to compare whale avoidance responses to a LF source in the center of the migration corridor versus in the offshore portion of the migration corridor. A single source was used to broadcast LFAS sounds at received levels of 170–178 dB re: 1 μPa. The Navy reported that the whales showed some avoidance responses when the source was moored one mile (1.8 km) offshore, and located within the migration path, but the whales returned to their migration path when they were a few kilometers beyond the source. When the source was moored two miles (3.7 km) offshore, responses were much less, even when the source level was increased to achieve the same received levels in the middle of the migration corridor as whales received when the source was located within the migration corridor (Clark *et al.,* 1999). In addition, the researchers noted that the offshore whales did not seem to avoid the louder offshore source.

Also during the LFS SRP, researchers sighted numerous odontocete and pinniped species in the vicinity of the

sound exposure tests with LFA sonar. The MF and HF hearing specialists present in California and Hawaii showed no immediately obvious responses or changes in sighting rates as a function of source conditions. Consequently, the researchers concluded that none of these species had any obvious behavioral reaction to LFA sonar signals at received levels similar to those that produced only minor short-term behavioral responses in the baleen whales (*i.e.,* LF hearing specialists). Thus, for odontocetes, the chances of injury and/or significant behavioral responses to LFA sonar would be low given the MF/HF specialists' observed lack of response to LFA sounds during the LFS SRP and due to the MF/HF frequencies to which these animals are adapted to hear (Clark and Southall, 2009).

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 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 at 1–2 kHz every 10 seconds for 10 minutes; Source B: with a 1.0 second upsweep 197 dB at 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, where killer whales cooperatively herd fish schools into a tight ball towards the surface and feed on the fish which have been stunned by tailslaps, and subsurface feeding (Simila, 1997) ceased feeding during the approach of the sonar and moved rapidly away from the source. When exposed to Source B, Kvadsheim *et al.* (2007) 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 killer whales were consistent with the results of other studies.

Southall *et al.* (2007) 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 and 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 no quantitative criteria were recommended for behavioral responses. 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 are considered non-pulse sounds. 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 (referenced and summarized in the following paragraphs).

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 active sonar) 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, 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 re: 1 μPa 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 active sonar) 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 re: 1 μPa, while in other cases these responses were not seen in the 120 to 150 dB re: 1 μPa 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 active sonar) 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 re: 1 μPa), at least for initial exposures. All recorded exposures above 140 dB re: 1 μPa 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 are no data to indicate whether other high frequency cetaceans are as sensitive to anthropogenic sound as harbor porpoises.

The studies that address the responses of pinnipeds in water to non-impulsive sounds include data gathered both in the field and the laboratory and related to several different sound sources including: AHDs, ATOC, various non-pulse sounds used in underwater data communication, underwater drilling, and construction noise. Few studies existed with enough information to

include them in the analysis. The limited data suggested that exposures to non-pulse sounds between 90 and 140 dB re: 1 μPa generally do not result in strong behavioral responses in pinnipeds in water, but no data exist at higher received levels.

In 2007, the first in a series of behavioral response studies (BRS) on deep diving odontocetes conducted by NMFS, Navy, and other scientists showed one Blainville's beaked whale 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 MF 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 appear to be sensitive to noise at levels well below expected TTS (~160 dB re: 1μ Pa). This sensitivity was manifested 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 of the MFAS transmission. The response to such stimuli appears to involve the beaked whale increasing the distance between it and the sound source. Overall the results from the 2007–2008 study showed a change in diving behavior of the Blainville's beaked whale to playback of MFAS and predator sounds (Boyd *et al.,* 2008; Southall *et al.,* 2009; Tyack *et al.,* 2011).

Stimpert *et al.* (2014) tagged a Baird's beaked whale, which was subsequently exposed to simulated MFAS. Received levels of sonar on the tag increased to a maximum of 138 dB re: 1μPa, which occurred during the first exposure dive. Some sonar received levels could not be measured due to flow noise and surface noise on the tag.

Reaction to mid-frequency sounds included premature cessation of clicking and termination of a foraging dive, and a slower ascent rate to the surface. Results from a similar behavioral response study in southern California waters were presented for the 2010–2011 field season (Southall *et al.,* 2011; DeRuiter *et al.,* 2013b). DeRuiter *et al.* (2013b) presented results from two Cuvier's beaked whales that were tagged and exposed to simulated MFAS during the 2010 and 2011 field seasons of the southern California behavioral response study. The 2011 whale was also incidentally exposed to MFAS from a distant naval exercise. Received levels from the MFAS signals from the controlled and incidental exposures were calculated as 84–144 and 78–106 dB re: 1 μPa rms, respectively. Both whales showed responses to the controlled exposures, ranging from initial orientation changes to avoidance responses characterized by energetic fluking and swimming away from the source. However, the authors did not detect similar responses to incidental exposure to distant naval sonar exercises at comparable received levels, indicating that context of the exposures (*e.g.,* source proximity, controlled source ramp-up) may have been a significant factor. Specifically, this result suggests that caution is needed when using marine mammal response data collected from smaller, nearer sound sources to predict at what received levels animals may respond to larger sound sources that are significantly farther away—as the distance of the source appears to be an important contextual variable and animals may be less responsive to sources at notably greater distances. 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).

In the 2007–2008 Bahamas study, playback sounds of a potential predator—a killer whale—resulted in a similar but more pronounced reaction, which included longer inter-dive intervals and a sustained straight-line departure of more than 20 km from the area (Boyd *et al.,* 2008; Southall *et al.,* 2009; Tyack *et al.,* 2011). The authors noted, however, that the magnified reaction to the predator sounds could represent a cumulative effect of exposure to the two sound types since killer whale playback began approximately 2 hours after MF source playback. Pilot whales and killer whales off Norway also exhibited horizontal avoidance of a transducer with outputs in the mid-frequency range (signals in the 1–2 kHz and 6–7 kHz ranges) (Miller *et al.,* 2011). Additionally, separation of a calf from its group during exposure to MFAS playback was observed on one occasion (Miller *et al.,* 2011, 2012). Miller *et al.* (2012) noted that this single observed mother-calf separation was unusual for several reasons, including the fact that the experiment was conducted in an unusually narrow fjord roughly one km wide and that the sonar exposure was started unusually close to the pod including the calf. Both of these factors could have contributed to calf separation. In contrast, preliminary analyses suggest that none of the pilot whales or false killer whales in the Bahamas showed an avoidance response to controlled exposure playbacks (Southall *et al.,* 2009).

In the 2010 BRS study, researchers again used controlled exposure experiments to carefully measure behavioral responses of individual animals to sound exposures of MFAS and pseudo-random noise. For each sound type, some exposures were conducted when animals were in a surface feeding (approximately 164 ft (50 m) or less) and/or socializing behavioral state and others while animals were in a deep feeding (greater than 164 ft (50 m)) and/or traveling mode. The researchers conducted the largest number of controlled exposure experiments on blue whales (n=19) and of these, 11 controlled exposure experiments involved exposure to the MFAS sound type. For the majority of controlled exposure experiment transmissions of either sound type, they noted few obvious behavioral responses detected either by the visual observers or on initial inspection of the tag data. The researchers observed that throughout the controlled exposure experiment transmissions, up to the highest received sound level (absolute RMS value approximately 160 dB re: 1 μPa with signal-to-noise ratio values over 60 dB), two blue whales continued surface feeding behavior and remained at a range of around 3,820 ft (1,000 m) from the sound source (Southall *et al.,* 2011). In contrast, another blue whale (later in the day and greater than 11.5 mi (18.5 km; 10 nmi) from the first controlled exposure experiment location) exposed to the same stimulus (MFA) while engaged in a deep feeding/travel state exhibited a different response. In that case, the blue whale responded almost immediately following the start of sound transmissions when received sounds

were just above ambient background levels (Southall *et al.,* 2011). The authors note that this kind of temporary avoidance behavior was not evident in any of the nine controlled exposure experiments involving blue whales engaged in surface feeding or social behaviors, but was observed in three of the ten controlled exposure experiments for blue whales in deep feeding/travel behavioral modes (one involving MFA sonar; two involving pseudo-random noise) (Southall *et al.,* 2011). The results of this study, as well as the results of the DeRuiter *et al.* (2013b) study of Cuvier's beaked whales discussed above, further illustrate the importance of behavioral context in understanding and predicting behavioral responses.

Through analysis of the behavioral response studies, a preliminary overarching effect of greater sensitivity to all anthropogenic exposures was seen in beaked whales compared to the other odontocetes studied (Southall *et al.,* 2009). Therefore, recent studies have focused specifically on beaked whale responses to active sonar transmissions or controlled exposure playback of simulated sonar on various military ranges (Defence Science and Technology Laboratory, 2007; Claridge and Durban, 2009; Moretti *et al.,* 2009; McCarthy *et al.,* 2011; Miller *et al.,* 2012; Southall *et al.,* 2011, 2012a, 2012b, 2013, 2014; Tyack *et al.,* 2011). In the Bahamas, Blainville's beaked whales located on the instrumented range will move off-range during sonar use and return only after the sonar transmissions have stopped, sometimes taking several days to do so (Claridge and Durban 2009; Moretti *et al.,* 2009; McCarthy *et al.,* 2011; Tyack *et al.,* 2011). Moretti *et al.* (2014) used recordings from seafloor-mounted hydrophones at the Atlantic Undersea Test and Evaluation Center (AUTEC) to analyze the probability of Blainsville's beaked whale dives before, during, and after Navy sonar exercises.

Southall *et al.* (2016) indicates that results from Tyack *et al.* (2011), Miller *et al.* (2015), Stimpert *et al.* (2014), and DeRuiter *et al.* (2013b) beaked whale studies demonstrate clear, strong, and pronounced but varied behavioral changes including avoidance with associated energetic swimming and cessation of individual foraging dives at quite low received levels (~100 to 135 dB re: 1 μPa) for exposures to simulated or active MF military sonars (1–8 kHz) with sound sources approximately 2–5 km away. Similar responses by beaked whales to sonar have been documented by Stimpert *et al.* (2014), Falcone *et al.* (2017), DiMarzio *et al.* (2018), and Joyce *et al.* (2019). Jones-Todd *et al.* (2021) developed a discrete-space, continuous-time analysis to estimate animal occurrence and unique movement probability into and out of an area over time, in response to sonar. They argue that existing models in the field are inappropriate for estimating a whale's exposure to sonar longitudinally and across multiple exercises; most models treat each day independently and don't consider repeated exposures over longer periods. This model also allows for individual variation in movement data. Using seven tagged Blainville's beaked whales' telemetry data, the model showed transition rates across an area's borders changing in response to sonar exposure, reflecting an avoidance response that lasted approximately 3 days after the end of the exposure. However, there are a number of variables influencing response or non-response including source distance (close vs. far), received sound levels, and other contextual variables such as other sound sources (*e.g.,* vessels, *etc.*) (Manzano-Roth *et al.,* 2016; Falcone *et al.,* 2017; Harris *et al.,* 2018). Wensveen *et al.* (2019) found northern bottlenose whales to avoid sonar out to distances of 28 km, but these distances are well in line with those observed on Navy ranges (Manzano-Roth *et al.,* 2016; Joyce *et al.,* 2019) where the animals return once the sonar has ceased. When exposed to especially long durations of naval sonar (up to 13 consecutive hours, repeatedly over 8 days), Cuvier's beaked whale detection rates remained low even 7 days after the exercise. In addition, a Mesoplodont beaked whale species was entirely displaced from the area during and at least 7 days after the sonar activity (Stanistreet *et al.,* 2022). Furthermore, beaked whales have also shown response to other non-sonar anthropogenic sounds such as commercial shipping and echosounders (Soto *et al.,* 2006; Pirotta *et al.,* 2012; Cholewiak *et al.,* 2017). Pirotta *et al.* (2012) documented broadband ship noise causing a significant change in beaked whale behavior up to at least 5.2 km away from the vessel. Even though beaked whales appear to be sensitive to anthropogenic sounds, the level of response at the population level does not appear to be significant based on over a decade of research at two heavily used Navy training areas in the Pacific (Falcone *et al.,* 2012; Schorr *et al.,* 2014; DiMarzio *et al.,* 2018; Schorr *et al.,* 2019). With the exception of seasonal patterns, DiMarzio *et al.* (2018) did not detect any changes in annual Cuvier's beaked whale abundance estimates in Southern California derived from passive acoustic echolocation detections over 9 years (2010–2018). Similar results for Blainville's beaked whales abundance estimates over several years was documented in Hawaii (Henderson *et al.,* 2016; DiMarzio *et al.,* 2018). Visually, there have been documented repeated sightings in southern California of the same individual Cuvier's beaked whales over 10 years, sightings of mother-calf pairs, and sightings of the same mothers with their second calf (Falcone *et al.,* 2012; Schorr *et al.,* 2014; Schorr *et al.,* 2019; Schorr, unpublished data).

Baleen whales have shown a variety of responses to impulse sound sources, including avoidance, reduced surface intervals, altered swimming behavior, and changes in vocalization rates (Richardson *et al.,* 1995; Gordon *et al.,* 2003; Southall, 2007). While most bowhead whales did not show active avoidance until within 8 km of seismic vessels (Richardson *et al.,* 1995), some whales avoided vessels by more than 20 km at received levels as low as 120 dB re: 1 μPa rms. Additionally, Malme *et al.* (1988) observed clear changes in diving and respiration patterns in bowheads at ranges up to 73 km from seismic vessels, with received levels as low as 125 dB re: 1 μPa.

Gray whales migrating along the United States West Coast showed avoidance responses to seismic vessels by 10 percent of animals at 164 dB re: 1 μPa, and by 90 percent of animals at 190 dB re: 1 μPa, with similar results for whales in the Bering Sea (Malme, 1986; 1988). In contrast, noise from seismic surveys was not found to impact feeding behavior or exhalation rates while resting or diving in western gray whales off the coast of Russia (Yazvenko *et al.,* 2007; Gailey *et al.,* 2007).

Humpback whales showed avoidance behavior at ranges of 5–8 km from a seismic array during observational studies and controlled exposure experiments in western Australia (McCauley, 1998; Todd *et al.,* 1996). Todd *et al.* (1996) found no clear short-term behavioral responses by foraging humpbacks to explosions associated with construction operations in Newfoundland, but did see a trend of increased rates of net entanglement and a shift to a higher incidence of net entanglement closer to the noise source.

The strongest baleen whale response in any behavioral response study was observed in a minke whale in the 3S2 study, which responded at 146 dB re: 1 μPa by strongly avoiding the sound source (Kvadsheim *et al.,* 2017; Sivle *et al.,* 2015). Although the minke whale increased its swim speed, directional movement, and respiration rate, none of these were greater than rates observed in

baseline behavior, and its dive behavior remained similar to baseline dives. A minke whale tagged in the Southern California behavioral response study also responded by increasing its directional movement, but maintained its speed and dive patterns, and so did not demonstrate as strong of a response (Kvadsheim *et al.,* 2017). In addition, the 3S2 minke whale demonstrated some of the same avoidance behavior during the controlled ship approach with no sonar, indicating at least some of the response was to the vessel (Kvadsheim *et al.,* 2017). Martin *et al.* (2015) found that the density of calling minke whales was reduced during periods of Navy training involving sonar relative to the periods before training, and increased again in the days after training was completed. The responses of individual whales could not be assessed, so in this case it is unknown whether the decrease in calling animals indicated that the animals left the range, or simply ceased calling. Similarly, minke whale detections made using Marine Acoustic Recording Instruments off Jacksonville, FL, were reduced or ceased altogether during periods of sonar use (Simeone *et al.,* 2015; U.S. Department of the Navy, 2013b), especially with an increased ping rate (Charif *et al.,* 2015). Harris *et al.* (2019b) utilized acoustically generated minke whale tracks at the U.S. Navy's Pacific Missile Range Facility to statistically demonstrate changes in the spatial distribution of minke whale acoustic presence before, during, and after surface ship mid-frequency active sonar training. The spatial distribution of probability of acoustic presence was different in the ''During'' phase compared to the ''Before'' phase, and the probability of presence at the center of ship activity for the ''During'' phase was close to zero for both years. The ''After'' phases for both years retained lower probabilities of presence, suggesting the return to baseline conditions may take more than 5 days. While the results show a clear spatial redistribution of calling minke whales during surface ship mid-frequency active sonar training, a limitation of passive acoustic monitoring is that one cannot conclude if the whales moved away, went silent, or a combination of the two.

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.

Continued Pre-Disturbance Behavior and Habituation

Under some circumstances, some of the individual marine mammals that are exposed to active sonar transmissions will continue their normal behavioral activities. In other circumstances, individual animals will respond to sonar transmissions at lower received levels and move to avoid additional exposure or exposures at higher received levels (Richardson *et al.,* 1995).

It is difficult to distinguish between animals that continue their pre-disturbance behavior without stress responses, animals that continue their behavior but experience stress responses (that is, animals that cope with disturbance), and animals that habituate to disturbance (that is, they may have experienced low-level stress responses initially, but those responses abated over time). Watkins (1986) reviewed data on the behavioral reactions of fin, humpback, right, and minke whales that were exposed to continuous, broadband low-frequency shipping and industrial noise in Cape Cod Bay. He concluded that underwater sound was the primary cause of behavioral reactions in these species of whales and that the whales responded behaviorally to acoustic stimuli within their respective hearing ranges. Watkins also noted that whales showed the strongest behavioral reactions to sounds in the 15 Hz to 28 kHz range, although negative reactions (avoidance, interruptions in vocalizations, *etc.*) were generally associated with sounds that were either unexpected, too loud, suddenly louder or different, or perceived as being associated with a potential threat (such as an approaching ship on a collision course). In particular, whales seemed to react negatively when they were within 100 m of the source or when received levels increased suddenly in excess of 12 dB relative to ambient sounds. At other times, the whales ignored the source of the signal and all four species habituated to these sounds. Nevertheless, Watkins concluded that whales ignored most sounds in the background of ambient noise, including sounds from distant human activities even though these sounds may have had considerable energies at frequencies well within the whales' range of hearing. Further, he noted that of the whales observed, fin whales were the most sensitive of the four species, followed by humpback whales; right whales were the least likely to be disturbed and generally did not react to low-amplitude engine noise. By the end of his period of study, Watkins (1986) concluded that fin and humpback whales had generally habituated to the continuous and broad-band noise of Cape Cod Bay while right whales did not appear to change their response. As mentioned above, animals that habituate to a particular disturbance may have experienced low-level stress responses initially, but those responses abated over time. In most cases, this likely means a lessened immediate potential effect from a disturbance. However, there is cause for concern where the habituation occurs in a potentially more harmful situation. For example, animals may become more vulnerable to vessel strikes once they habituate to vessel traffic (Swingle *et al.,* 1993; Wiley *et al.,* 1995).

Aicken *et al.* (2005) monitored the behavioral responses of marine mammals to a new low-frequency active sonar system used by the British Navy (which would be considered mid-frequency active sonar under this rule as it operates at frequencies greater than 1,000 Hz). During those trials, fin whales, sperm whales, Sowerby's beaked whales, long-finned pilot whales, Atlantic white-sided dolphins, and common bottlenose dolphins were observed and their vocalizations were recorded. These monitoring studies detected no evidence of behavioral responses that the investigators could attribute to exposure to the low-frequency active sonar during these trials.

Explosive 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). 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). 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 (see the *Hearing Loss—Threshold Shift* section). 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).

Further Potential Effects of Behavioral Disturbance on Marine Mammal Fitness

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 are few quantitative marine mammal data 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. Several authors have reported that disturbance stimuli may cause animals to abandon nesting and foraging sites (Sutherland and Crockford, 1993); may cause animals to increase their activity levels and suffer premature deaths or reduced reproductive success when their energy expenditures exceed their energy budgets (Daan *et al.,* 1996; Feare, 1976; Mullner *et al.,* 2004); or may cause animals to experience higher predation rates when they adopt risk-prone foraging or migratory strategies (Frid and Dill, 2002). Each of these studies addressed the consequences of animals shifting from one behavioral state (*e.g.,* resting or foraging) to another behavioral state (*e.g.,* avoidance or escape behavior) because of human disturbance or disturbance stimuli.

One consequence of behavioral avoidance results in the altered energetic expenditure of marine mammals because energy is required to move and avoid surface vessels or the sound field associated with active sonar (Frid and Dill, 2002). Most animals can avoid that energetic cost by swimming away at slow speeds or speeds that minimize the cost of transport (Miksis-Olds, 2006), as has been demonstrated in Florida manatees (Miksis-Olds, 2006).

Those energetic costs increase, however, when animals shift from a resting state, which is designed to conserve an animal's energy, to an active state that consumes energy the animal would have conserved had it not been disturbed. Marine mammals that have been disturbed by anthropogenic noise and vessel approaches are commonly reported to shift from resting to active behavioral states, which would imply that they incur an energy cost.

Morete *et al.* (2007) reported that undisturbed humpback whale cows that were accompanied by their calves were frequently observed resting while their calves circled them (milling). When vessels approached, the amount of time cows and calves spent resting and milling, respectively, declined significantly. These results are similar to those reported by Scheidat *et al.* (2004) for the humpback whales they observed off the coast of Ecuador.

Constantine and Brunton (2001) reported that bottlenose dolphins in the Bay of Islands, New Zealand, engaged in resting behavior just 5 percent of the time when vessels were within 300 m, compared with 83 percent of the time when vessels were not present. However, Heenehan *et al.* (2016) report that results of a study of the response of Hawaiian spinner dolphins to human disturbance suggest that the key factor is not the sheer presence or magnitude of human activities, but rather the directed interactions and dolphin-focused activities that elicit responses from dolphins at rest. This information again illustrates the importance of context in regard to whether an animal will respond to a stimulus. Miksis-Olds (2006) and Miksis-Olds *et al.* (2005) reported that Florida manatees in Sarasota Bay, Florida, reduced the amount of time they spent milling and increased the amount of time they spent feeding when background noise levels increased. Although the acute costs of these changes in behavior are not likely to exceed an animal's ability to compensate, the chronic costs of these behavioral shifts are uncertain.

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 or resting. These effects have generally not been demonstrated for marine mammals, but studies involving fish and terrestrial animals have shown that increased vigilance may substantially reduce feeding rates (Saino, 1994; Beauchamp and Livoreil, 1997; Fritz *et al.,* 2002; Purser and Radford, 2011). Animals will spend more time being vigilant (which may translate to less time foraging or resting) when disturbance stimuli approach an animal more directly, remain at closer distances, have a greater group size (*e.g.,* multiple surface

vessels), or co-occur with times that an animal perceives increased risk (*e.g.,* when they are giving birth or accompanied by a calf). An example of this concept with terrestrial species involved bighorn sheep and Dall's sheep, which dedicated more time being vigilant, and less time resting or foraging, when aircraft made direct approaches over them (Frid, 2001; Stockwell *et al.,* 1991). Vigilance has also been documented in pinnipeds at haul-out sites where resting may be disturbed when seals become alerted and/or flush into the water due to a variety of disturbances, which may be anthropogenic (noise and/or visual stimuli) or due to other natural causes such as other pinnipeds (Richardson *et al.,* 1995; Southall *et al.,* 2007; VanBlaricom, 2010; Lozano and Hente, 2014).

Chronic disturbance can cause population declines through reduction of fitness (*e.g.,* decline in body condition) and subsequent reduction in reproductive success, survival, or both (*e.g.,* Harrington and Veitch, 1992; Daan *et al.,* 1996; Bradshaw *et al.,* 1998). For example, Madsen (1994) reported that pink-footed geese (*Anser brachyrhynchus*) 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 (*Rangifer tarandus caribou*) disturbed by seismic exploration blasts (Bradshaw *et al.,* 1998), and caribou disturbed by low-elevation military jet fights (Luick *et al.,* 1996; Harrington and Veitch, 1992). Similarly, a study of elk (*Cervus elaphus*) that were disturbed experimentally by pedestrians concluded that the ratio of young to mothers was inversely related to disturbance rate (Phillips and Alldredge, 2000). However, Ridgway *et al.* (2006) reported that increased vigilance in bottlenose dolphins exposed to sound over a five-day period in open-air, open-water enclosures in San Diego Bay did not cause any sleep deprivation or stress effects such as changes in cortisol or epinephrine levels.

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 while decreasing their caloric intake/energy). An example of this concept with terrestrial species involved a study of grizzly bears (*Ursus horribilis*) that reported that bears disturbed by hikers reduced their energy intake by an average of 12 kilocalories/min (50.2 x 103 kiloJoules/min), and spent energy fleeing or acting aggressively toward hikers (White *et al.,* 1999). In a separate study, by integrating different sources of data (*e.g.,* controlled exposure data, activity monitoring, telemetry tracking, and prey sampling) into a theoretical model to predict effects from sonar on a blue whale's daily energy intake, Pirotta *et al.* (2021) found that tagged blue whales' activity budgets, lunging rates, and ranging patterns caused variability in their predicted cost of disturbance.

Lusseau and Bejder (2007) present data from three long-term studies illustrating the connections between disturbance from whale-watching boats and population-level effects in cetaceans. In Shark Bay, Australia, the abundance of bottlenose dolphins was compared within adjacent control and tourism sites over three consecutive 4.5-year periods of increasing tourism levels. Between the second and third time periods, in which tourism doubled, dolphin abundance decreased by 15 percent in the tourism area and did not change significantly in the control area. In Fiordland, New Zealand, two populations (Milford and Doubtful Sounds) of bottlenose dolphins with tourism levels that differed by a factor of seven were observed and significant increases in travelling time and decreases in resting time were documented for both. Consistent short-term avoidance strategies were observed in response to tour boats until a threshold of disturbance was reached (average 68 minutes between interactions), after which the response switched to a longer-term habitat displacement strategy. For one population, tourism only occurred in a part of the home range. However, tourism occurred throughout the home range of the Doubtful Sound population and once boat traffic increased beyond the 68-minute threshold (resulting in abandonment of their home range/preferred habitat), reproductive success drastically decreased (increased stillbirths) and abundance decreased significantly (from 67 to 56 individuals in a short period). Last, in a study of northern resident killer whales off Vancouver Island, exposure to boat traffic was shown to reduce foraging opportunities and increase traveling time. A simple bioenergetics model was applied to show that the reduced foraging opportunities equated to a decreased energy intake of 18 percent, while the increased traveling incurred an increased energy output of 3–4 percent, which suggests that a management action based on avoiding interference with foraging might be particularly effective.

On a related note, many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hour cycle). Behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant for fitness 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). It is important to note the difference between behavioral reactions lasting or recurring over multiple days and anthropogenic activities lasting or recurring over multiple days. For example, just because at-sea exercises last for multiple days does not necessarily mean that individual animals will be either exposed to those activity-related stressors (*i.e.,* sonar) for multiple days or further, exposed in a manner that would result in sustained multi-day substantive behavioral responses.

Stone (2015a) reported data from at-sea observations during 1,196 airgun surveys from 1994 to 2010. When large arrays of airguns (considered in this study to be 500 in^3 or more) were firing, lateral displacement, more localized avoidance, or other changes in behavior were evident for most odontocetes. However, significant responses to large arrays were found only for the minke whale and fin whale. Behavioral responses observed included changes in swimming or surfacing behavior, with indications that cetaceans remained near the water surface at these times. Cetaceans were recorded as feeding less often when large arrays were active. Monitoring of gray whales during an air gun survey included recording whale movements and respirations pre-, during-, and post-seismic survey (Gailey *et al.,* 2016). Behavioral state and water depth were the best ''natural'' predictors of whale movements and respiration and, after considering natural variation, none of the response variables were

significantly associated with survey or vessel sounds.

In order to understand how the effects of activities may or may not impact species and stocks of marine mammals, it is necessary to understand not only what the likely disturbances are going to be, but how those disturbances may affect the reproductive success and survivorship of individuals, and then how those impacts to individuals translate to population-level effects. Following on the earlier work of a committee of the U.S. National Research Council (NRC, 2005), New *et al.* (2014), in an effort termed the Potential Consequences of Disturbance (PCoD), outline an updated conceptual model of the relationships linking disturbance to changes in behavior and physiology, health, vital rates, and population dynamics. In this framework, behavioral and physiological changes can have direct (acute) effects on vital rates, such as when changes in habitat use or increased stress levels raise the probability of mother-calf separation or predation; they can have indirect and long-term (chronic) effects on vital rates, such as when changes in time/energy budgets or increased disease susceptibility affect health, which then affects vital rates; or they can have no effect to vital rates (New *et al.,* 2014). In addition to outlining this general framework and compiling the relevant literature that supports it, the authors chose four example species for which extensive long-term monitoring data exist (southern elephant seals, North Atlantic right whales, *Ziphidae* beaked whales, and bottlenose dolphins) and developed state-space energetic models that can be used to forecast longer-term, population-level impacts from behavioral changes. While these are very specific models with very specific data requirements that cannot yet be applied broadly to project-specific risk assessments for the majority of species, as well as requiring significant resources and time to conduct (more than is typically available to support regulatory compliance for one project), they are a critical first step towards being able to quantify the likelihood of a population level effect.

Since New *et al.* (2014), several publications have described models developed to examine the long-term effects of environmental or anthropogenic disturbance of foraging on various life stages of selected species (sperm whale, Farmer *et al.* (2018); California sea lion, McHuron *et al.* (2018); blue whale, Pirotta *et al.* (2018a); pilot whales, Hin *et al.* (2021); gray whale, McHuron *et al.,* 2021). These models continue to add to refinement of the approaches to the population consequences of disturbance (PCOD) framework. Such models also help identify what data inputs require further investigation. Pirotta *et al.* (2018b) provides a review of the PCOD framework with details on each step of the process and approaches to applying real data or simulations to achieve each step.

New *et al.* (2020) found that closed populations of dolphins could not withstand a higher probability of disturbance, compared to open populations with no limitation on food. Two bottlenose dolphin populations in Australia were also modeled over 5 years against a number of disturbances (Reed *et al.,* 2020), and results indicated that habitat/noise disturbance had little overall impact on population abundances in either location, even in the most extreme impact scenarios modeled. By integrating different sources of data (*e.g.,* controlled exposure data, activity monitoring, telemetry tracking, and prey sampling) into a theoretical model to predict effects from sonar on a blue whale's daily energy intake, Pirotta *et al.* (2021) found that tagged blue whales' activity budgets, lunging rates, and ranging patterns caused variability in their predicted cost of disturbance. Dunlop *et al.* (2021) modeled migrating humpback whale mother-calf pairs in response to seismic surveys using both a forwards and backwards approach. While a typical forwards approach can determine if a stressor would have population-level consequences, authors demonstrated that working backwards through a PCoD model can be used to assess the ''worst case'' scenario for an interaction of a target species and stressor. This method may be useful for future management goals when appropriate data becomes available to fully support the model. Harbor porpoise movement and foraging were modeled for baseline periods and then for periods with seismic surveys as well; the models demonstrated that the seasonality of the seismic activity was an important predictor of impact (Gallagher *et al.,* 2021). Murray *et al.* (2021) conducted a cumulative effects assessment on Northern and Southern resident killer whales, which involved both a Pathways of Effects conceptual model and a Population Viability Analysis quantitative simulation model. Authors found that both populations were highly sensitive to prey abundance, and were also impacted by the interaction of low prey abundance with vessel strike, vessel noise, and polychlorinated biphenyls contaminants. However, more research is needed to validate the mechanisms of vessel disturbance and environmental containments. Czapanskiy *et al.* (2021) modeled energetic costs associated with behavioral response to mid-frequency active sonar using datasets from eleven cetaceans' feeding rates, prey characteristics, avoidance behavior, and metabolic rates. Authors found that the short-term energetic cost was influenced more by lost foraging opportunities than increased locomotor effort during avoidance. Additionally, the model found that mysticetes incurred more energetic cost that odontocetes, even during mild behavioral responses to sonar.

Stranding and Mortality

The definition for a stranding under title IV of the MMPA 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 (see MMPA section 410(3)). This definition is useful for considering stranding events even when they occur beyond lands and waters under the jurisdiction of the United States.

Marine mammal strandings have been linked to a variety of causes, such as illness from exposure to infectious agents, biotoxins, or parasites; starvation; unusual oceanographic or weather events; or anthropogenic causes including fishery interaction, ship strike, entrainment, entrapment, sound exposure, or combinations of these stressors sustained concurrently or in series. Historically, the cause or causes of most strandings have remained unknown (Geraci *et al.,* 1976; Eaton, 1979; Odell *et al.,* 1980; Best, 1982), but the development of trained, professional stranding response networks and improved analyses have led to a greater understanding of marine mammal stranding causes (Simeone and Moore 2017).

Numerous studies suggest that the physiology, behavior, habitat, social 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 (Bernaldo de Quiros *et al.,* 2019; 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).

Historically, stranding reporting and response efforts have been inconsistent, although significant improvements have occurred over the last 25 years. Reporting forms for basic (''Level A'') information, rehabilitation disposition, and human interaction have been standardized nationally (available at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/level-data-collection-marine-mammal-stranding-events*). However, data collected beyond basic information varies by region (and may vary from case to case), and are not standardized across the United States. Logistical conditions such as weather, time, location, and decomposition state may also affect the ability of the stranding network to thoroughly examine a specimen (Carretta *et al.,* 2016b; Moore *et al.,* 2013). While the investigation of stranded animals provides insight into the types of threats marine mammal populations face, full investigations are only possible and conducted on a small fraction of the total number of strandings that occur, limiting our understanding of the causes of strandings (Carretta *et al.,* 2016a). Additionally, and due to the variability in effort and data collected, the ability to interpret long-term trends in stranded marine mammals is complicated.

Several mass strandings (strandings that involve two or more individuals of the same species, excluding a single mother-calf pair) that have occurred over the past two decades have been associated with anthropogenic activities that introduced sound into the marine environment such as naval operations and seismic surveys. An in-depth discussion of strandings is in the Navy's Technical Report on Marine Mammal Strandings Associated with U.S. Navy Sonar Activities (U.S. Navy Marine Mammal Program & Space and Naval Warfare Systems Command Center Pacific, 2017).

Worldwide, there have been several efforts to identify relationships between cetacean mass stranding events and military active sonar (Cox *et al.,* 2006; Hildebrand, 2004; IWC, 2005; Taylor *et al.,* 2004). For example, based on a review of mass stranding events around the world consisting of two or more individuals of Cuvier's beaked whales, records from the International Whaling Commission (IWC) (2005) show that a quarter (9 of 41) were associated with concurrent naval patrol, explosion, maneuvers, or MFAS. D'Amico *et al.* (2009) reviewed beaked whale stranding data compiled primarily from the published literature (which provides an incomplete record of stranding events, as many are not written up for publication), along with unpublished information from some regions of the world.

Most of the stranding events reviewed by the IWC 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. Other cetacean species with naval sonar implicated in stranding events include harbor porpoise (*Phocoena phocoena*) (Norman *et al.,* 2004; Wright *et al.,* 2013) and common dolphin (*Delphinus delphis*) (Jepson and Deaville 2009).

Strandings Associated with Impulsive Sound

Silver Strand

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 lbs (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 Oceanside, California (3 days later and approximately 68 km north of the detonation), 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 impulsive energy (underwater detonation) that caused mortality or injury to a marine mammal. Despite this being a rare occurrence, NMFS and the Navy reviewed training requirements, safety procedures, and possible mitigation measures and implemented changes to reduce the potential for this to occur in the future—specifically increasing the size of the exclusion zone to better account for the time-delay fuse and the distance that marine mammals might travel during the time delay. Discussions of procedures associated with in-air explosives at or above the water surface during training are presented in the Proposed Mitigation Measures section.

Kyle of Durness, Scotland

On July 22, 2011 a mass stranding event involving long-finned pilot whales occurred at Kyle of Durness, Scotland. An investigation by Brownlow *et al.* (2015) considered unexploded ordnance detonation activities at a Ministry of Defense bombing range, conducted by the Royal Navy prior to and during the strandings, as a plausible contributing factor in the mass stranding event. While Brownlow *et al.* (2015) concluded that the serial detonations of underwater ordnance were an influential factor in the mass stranding event (along with the presence of a potentially compromised animal and navigational error in a topographically complex region), they also suggest that mitigation measures—which included observations from a zodiac only and by personnel not experienced in marine mammal observation, among other deficiencies—were likely insufficient to assess if cetaceans were in the vicinity of the detonations. The authors also cite information from the Ministry of Defense indicating ''an extraordinarily high level of activity'' (*i.e.,* frequency and intensity of underwater explosions) on the range in the days leading up to the stranding.

Strandings Associated With Active Sonar

Over the past 21 years, there have been five stranding events coincident with naval MF active 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) (Cox *et al.,* 2006; Fernandez, 2006; U.S. Navy Marine Mammal Program & Space and Naval Warfare Systems Command Center Pacific, 2017). These five mass strandings have resulted in about 40 known cetacean deaths consisting mostly of beaked whales and with close linkages to mid-frequency active sonar activity. In these circumstances, exposure to non-impulsive acoustic energy was considered a potential indirect cause of death of the marine mammals (Cox *et al.,* 2006). Only one of these stranding events, the Bahamas (2000), was associated with exercises conducted by the U.S. Navy. 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 Hanalei Bay stranding. A number of other stranding events coincident with the operation of MFAS, 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. Most recently, the Independent Scientific Review Panel investigating potential contributing factors to a 2008 mass stranding of melon-headed whales in Antsohihy, Madagascar released its final report suggesting that the stranding was likely initially triggered by an industry seismic survey (Southall *et al.,* 2013). This report suggests that the operation of a commercial high-powered 12 kHz multi-beam echosounder during an industry seismic survey was a plausible and likely initial trigger that caused a large group of melon-headed whales to leave their typical habitat and then ultimately strand as a result of secondary factors such as malnourishment and dehydration. The report indicates that the risk of this particular convergence of factors and ultimate outcome is likely very low, but recommends that the potential be considered in environmental planning. Because of the association between tactical mid-frequency active sonar use and a small number of marine mammal strandings, the Navy and NMFS have been considering and addressing the potential for strandings in association with Navy activities for years. In addition to the proposed mitigation measures intended to more broadly minimize impacts to marine mammals, the Navy would abide by the Notification and Reporting Plan, which sets out notification, reporting, and other requirements when dead, injured, or stranded marine mammals are detected in certain circumstances.

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 significant apparent abnormalities or wounds were found, however examination of photos of the animals, taken soon after their death, revealed that the eyes of at least four of the individuals were bleeding (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 was 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 historical records), 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-hour 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, Portugal (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 a fisherman but did not come ashore (Woods Hole Oceanographic Institution, 2005). Joint NATO amphibious training peacekeeping exercises involving participants from 17 countries and 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 nmi (65 km) and at least 10 nmi (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 3 days either on the coast or floating offshore. These strandings occurred within close 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, 6 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 the 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, Hawaii (2004)

On July 3 and 4, 2004, approximately 150 to 200 melon-headed whales occupied the shallow waters of Hanalei Bay, Kauai, 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 it is not known 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 United States. 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, NMFS considers 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, 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 Mojácar (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 Mojácar 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 nmi (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).

Behaviorally Mediated Responses to MFAS That May Lead to Stranding

Although the confluence of Navy MFAS with the other contributory factors noted in the 2001 NMFS/Navy joint 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 well 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). In a review of the previously published data on the potential impacts of sonar on beaked whales, Bernaldo de Quirós *et al.* (2019) suggested that the effect of mid-frequency active sonar on beaked whales varies among individuals or populations, and that predisposing conditions such as previous exposure to sonar and individual health risk factors may contribute to individual outcomes (such as decompression sickness).

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.* (2001b) 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 km) 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 (see also 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 Cuvier's beaked whale), 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 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; Fernández *et al.,* 2012) could stem from a behavioral response that involves repeated dives shallower than the depth at which lung collapse occurs. 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 could 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). Please see the *Flight Response* section of this proposed rule for additional discussion.

Despite the many theories involving bubble formation (both as a direct cause of injury, see *Acoustically-Induced Bubble Formation Due to Sonars and Other Pressure-related Injury* section and an indirect cause of stranding), 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.

Strandings in the GOA Study Area

Stranded marine mammals are reported along the entire western coast of the United States each year. Marine mammals strand due to natural or anthropogenic causes; the majority of reported type of occurrences in marine mammal strandings in the Pacific include fisheries interactions, entanglement, vessel strike, and predation (Carretta *et al.,* 2019a; Carretta *et al.,* 2019b; Carretta *et al.,* 2017a; Helker *et al.,* 2019; Helker *et al.,* 2017; NOAA, 2018, 2019). Stranding events that are associated with active UMEs in Alaska (inclusive of the GOA Study Area) were previously discussed in the Description of Marine Mammals and Their Habitat in the Area of the Specified Activities section.

In 2020, there were 65 confirmed strandings reported in the Gulf of Alaska (Savage, 2021). Of these strandings, 43 were cetaceans; 20 of the stranded cetaceans were gray whales, which as discussed in the Description of Marine Mammals and Their Habitat in the Area of the Specified Activities section of this proposed rule, are affected by a UME. Of the 2020 confirmed reports involving human interaction, most reports indicated an entanglement. Naval sonar has been identified as a contributing factor in a small number of strandings as discussed above; however, none of these have occurred in the GOA Study Area.

Potential Effects of Vessel Strike

Vessel collisions with marine mammals, also referred to as vessel strikes or ship strikes, can result in death or serious injury of the animal. Wounds resulting from ship strike may include massive trauma, hemorrhaging, broken bones, or propeller lacerations (Knowlton and Kraus, 2001). 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. Superficial strikes may not kill or result in the death of the animal. Lethal interactions are typically associated with large whales, which are occasionally found draped across the bulbous bow of large commercial ships upon arrival in port. Although smaller cetaceans are more maneuverable in relation to large vessels than are large whales, as a general matter they may also be susceptible to strike.

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 one recent case, an Australian naval vessel struck both a mother fin whale and calf off the coast of California. In addition, some baleen whales 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. Marine mammal responses to vessels may include avoidance and changes in dive pattern (NRC, 2003).

Some researchers have suggested the relative risk of a vessel strike can be assessed as a function of animal density and the magnitude of vessel traffic (*e.g.,* Fonnesbeck *et al.,* 2008; Vanderlaan *et al.,* 2008). Differences among vessel types also influence the probability of a vessel strike. The ability of any ship to detect a marine mammal and avoid a collision depends on a variety of factors, including environmental conditions, ship design, size, speed, and ability and number of personnel observing, as well as the behavior of the animal.

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 occurs and, if so, whether it results in injury, serious injury, or mortality (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Jensen and Silber, 2003; Pace and Silber, 2005; Vanderlaan and Taggart, 2007; Conn and Silber 2013). Impact forces increase with speed, as does the probability of a strike at a given distance (Silber *et al.,* 2010; Gende *et al.,* 2011). For large vessels, speed and angle of approach can influence the severity of a strike. 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 kn.

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 58 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 kn. The majority (79 percent) of these strikes occurred at speeds of 13 kn or greater. The average speed that resulted in serious injury or death was 18.6 kn. 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 kn, and exceeded 90 percent at 17 kn. Higher speeds during collisions result in greater force of impact and also appear to increase the chance of severe injuries or death. While modeling studies have suggested that hydrodynamic forces pulling whales toward the vessel hull increase with increasing speed (Clyne, 1999; Knowlton *et al.,* 1995), this is inconsistent with Silber *et al.* (2010), which demonstrated that there is no such relationship (*i.e.,* hydrodynamic forces are independent of speed).

In a separate study, Vanderlaan and Taggart (2007) analyzed the probability of lethal mortality of large whales at a given speed, showing that the greatest rate of change in the probability of a lethal injury to a large whale as a function of vessel speed occurs between 8.6 and 15 kn. The chances of a lethal injury decline from approximately 80 percent at 15 kn to approximately 20 percent at 8.6 kn. At speeds below 11.8 kn, the chances of lethal injury drop below 50 percent, while the probability asymptotically increases toward 100 percent above 15 kn.

Large whales also do not have to be at the water's surface to be struck. Silber *et al.* (2010) found when a whale is below the surface (about one to two times the vessel draft), there is likely to be a pronounced propeller suction effect. This suction effect may draw the whale into the hull of the ship, increasing the probability of propeller strikes.

The Jensen and Silber (2003) report notes that the Large Whale Ship Strike Database represents a minimum number of collisions, because the vast majority probably goes undetected or unreported. In contrast, Navy personnel are more likely to detect any strike that does occur because of the required personnel training and Lookouts (as described in the Proposed Mitigation Measures section), and they are required to report all ship strikes involving marine mammals.

There are some key differences between the operation of military and non-military vessels, which make the likelihood of a military vessel striking a whale lower than some other vessels (*e.g.,* commercial merchant vessels), although as noted above strikes by naval vessels can occur. Key differences include:

- many military ships have their bridges positioned closer to the bow, offering better visibility ahead of the ship (compared to a commercial merchant vessel);
- there are often aircraft associated with the training activity (which can serve as Lookouts), which can more readily detect cetaceans in the vicinity of a vessel or ahead of a vessel's present course before crew on the vessel would be able to detect them;
- military ships are generally more maneuverable than commercial merchant vessels, and if cetaceans are spotted in the path of the ship, could be capable of changing course more quickly;
- the crew size on military vessels is generally larger than merchant ships, allowing for stationing more trained Lookouts on the bridge. At all times when vessels are underway, trained Lookouts and bridge navigation teams are used to detect objects on the surface of the water ahead of the ship, including cetaceans. Additional Lookouts, beyond those already stationed on the bridge and on navigation teams, are positioned as Lookouts during some training events; and
- when submerged, submarines are generally slow moving (to avoid detection) and therefore marine mammals at depth with a submarine are likely able to avoid collision with the submarine. When a submarine is transiting on the surface, there are Lookouts serving the same function as they do on surface ships.

In the GOA Study Area, NMFS and the Navy have no documented vessel strikes of marine mammals by the Navy. Therefore, NMFS has not used the quantitative approach to assess the likelihood of vessel strikes used in the Phase III incidental take rulemakings for Navy activities in the Atlantic Fleet Training and Testing (AFTT) and Hawaii-Southern California Training and Testing (HSTT) Study Areas, which starts with the number of Navy strikes that have occurred in the study area in question. But based on this lack of strikes and other factors described below, which the Navy presented and NMFS agrees are appropriate factors to consider in assessing the likelihood of ship strike, the Navy does not anticipate vessel strikes and has not requested authorization to take marine mammals by serious injury or mortality within the GOA Study Area during training activities. Based on consideration of all pertinent information, including, as appropriate, information on ship strikes in other Navy study areas, NMFS agrees with the Navy's conclusion based on the analysis and other factors described below.

Within Alaska waters, there were 28 reported marine mammal vessel strikes between 2013 and 2017 (none of which were from U.S. Navy vessels) (Delean *et al.,* 2020), which is a primary consideration in the evaluation of the likelihood that a strike by U.S. Navy vessels would occur in the GOA Study Area in the next 7 years. Though not in the same region, and noting the larger scale and differences in types of activities that occur there, NMFS also considered the incidents of two accidental ship strikes of large whales by U.S. Navy vessels in the HSTT Study Area that occurred in June 2021 and July 2021 (the first U.S. Navy ship strikes in the HSTT Study Area since 2009). The two ship strikes were of large whales, but in both cases, the whale's species could not be determined. Appropriately, as indicated in the Navy's 2022 application (87 FR 33113; June 1, 2022) to revise the 2020 HSTT regulations (50 CFR part 218, subpart H) and LOAs, and as has been the practice in NMFS analyses for all major Navy training and testing rules, those strikes

would be quantitatively incorporated into the prediction of future strikes in that region. However, due to differences across regions, both in the density and occurrence of marine mammals, the levels and types of activities, and other environmental factors—all of which contribute to differences in the historical strikes in a given region—strikes that occur in the HSTT Study Area are not quantitatively considered in strike predictions for the GOA Study Area.

More broadly regarding the likelihood of strikes from U.S. Navy vessels, large Navy vessels (greater than 18 m in length) within the offshore areas of range complexes operate differently from commercial vessels in ways that still likely reduce potential whale collisions. Surface ships operated by or for the Navy have multiple personnel assigned to stand watch at all times when a ship or surfaced submarine is moving through the water (underway). A primary duty of personnel standing watch on surface ships is to detect and report all objects and disturbances sighted in the water that may indicate a threat to the vessel and its crew, such as debris, a periscope, surfaced submarine, or surface disturbance. Per vessel safety requirements, personnel standing watch also report any marine mammals sighted in the path of the vessel as a standard collision avoidance procedure. All vessels proceed at a safe speed so they can take proper and effective action to avoid a collision with any sighted object or disturbance, and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

Between 2007 and 2009, the Navy developed and distributed additional training, mitigation, and reporting tools to Navy operators to improve marine mammal protection and to ensure compliance with LOA requirements. In 2009, the Navy implemented Marine Species Awareness Training designed to improve effectiveness of visual observation for marine resources, including marine mammals. Additionally, for over a decade, the Navy has implemented the Protective Measures Assessment Protocol software tool, which provides operators with notification of the required mitigation and a visual display of the planned training or testing activity location overlaid with relevant environmental data.

Furthermore, specific to the Navy's proposed activities in the GOA Study Area, the training activities would occur over a maximum of 21 days annually over a large area within the Gulf of Alaska, in comparison to Navy activities that occur 365 days-per-year in other Study Areas. The GOA Study Area activities would include one Carrier Strike Group, which the Navy indicates would include up to six surface vessels (though in some cases there could be more vessels, and in some cases there could be fewer). Therefore, the Navy's activities in the GOA Study Area would include an estimated 126 at-sea days (6 vessels × 21 days) annually. This level of potential Navy vessel activity is far lower than vessel activity in other Study Areas. The estimated number of at-sea days for Navy training activities in the GOA Study Area is approximately 1/4th of that associated with Navy training and testing in the Mariana Islands Training and Testing (MITT) Study Area (where vessel strike is also not anticipated and has not occurred) over the same time period, and approximately 1/36th of that associated with Navy training and testing in the Hawaii-Southern California Training and Testing (HSTT) Study Area (where limited vessel strike is authorized) over the same time period. In addition to vessel strikes of large whales being unlikely to occur for the reasons explained, the Navy would implement certain additional mitigation measures that would reduce the chance of a vessel strike even further. See the Proposed Mitigation Measures section for more details.

Based on all of these considerations, NMFS has preliminarily determined that the Navy's decision not to request incidental take authorization for vessel strike of large whales is reasonable and supported by multiple factors, including the lack of ship strike reports in recent (2013–2017) stranding records for Alaska waters (including no strikes by Navy vessels in the GOA Study Area; Delean *et al.,* 2020), the relatively small numbers of Navy vessels across a large expanse of offshore waters in the GOA Study Area, the relatively short activity period in which Navy vessels would operate (maximum of 21 days per year), and the procedural mitigation measures that would be in place to further minimize the potential for vessel strike.

In addition to the reasons listed above that make it unlikely that the Navy would hit a large whale (more maneuverable ships, larger crew, etc.), the following are additional reasons that vessel strike of dolphins, small whales, and pinnipeds is very unlikely. Dating back more than 20 years and for as long as it has kept records, the Navy has no records of any small whales or pinnipeds being struck by a vessel as a result of Navy activities. Over the same time period, NMFS and the Navy have only one record of a dolphin being struck by a vessel as a result of Navy activities. The dolphin was accidentally struck by a Navy small boat in fall 2021 in Saint Andrew's Pass, Florida. The smaller size and maneuverability of dolphins, small whales, and pinnipeds generally make such strikes very unlikely. Other than this one reported strike of a dolphin in 2021, NMFS has never received any reports from other LOA or Incidental Harassment Authorization holders indicating that these species have been struck by vessels. In addition, worldwide ship strike records show little evidence of strikes of these groups from the shipping sector and larger vessels, and the majority of the Navy's activities involving faster-moving vessels (that could be considered more likely to hit a marine mammal) are located in offshore areas where smaller delphinid densities are lower. The majority of the GOA Study Area is located offshore of the continental slope. While the Navy's specified activities in the GOA Study Area do involve the use of small boats also, use of small boats would occur on no more than 21 days per year, the length of the Navy's proposed training exercise. Based on this information, NMFS concurs with the Navy's assessment that vessel strike is not likely to occur for either large whales or smaller marine mammals.

Marine Mammal Habitat

The Navy's proposed training activities could potentially affect marine mammal habitat through the introduction of impacts to the prey species of marine mammals, acoustic habitat (sound in the water column), water quality, and biologically important habitat for marine mammals. Each of these potential effects was considered in the 2020 GOA DSEIS/OEIS and 2022 Supplement to the 2020 GOA DSEIS/OEIS, and based on the information below and the supporting information included in the 2020 GOA DSEIS/OEIS, NMFS has preliminarily determined that the proposed training activities would not have adverse or long-term impacts on marine mammal habitat that would be expected to affect the reproduction or survival of any marine mammals.

Effects to Prey

Sound may affect marine mammals through impacts on the abundance, behavior, or distribution of prey species (*e.g.,* crustaceans, cephalopods, fish, zooplankton). Marine mammal prey varies by species, season, and location and, for some species, is not well documented. Here, we describe studies

regarding the effects of noise on known marine mammal prey.

Fish utilize the soundscape and components of sound in their environment to perform important functions such as foraging, predator avoidance, mating, and spawning (*e.g.,* Zelick *et al.,* 1999; Fay, 2009). The most likely effects on fishes exposed to loud, intermittent, low-frequency sounds are behavioral responses (*i.e.,* flight or avoidance). Short duration, sharp sounds (such as pile driving or air guns) can cause overt or subtle changes in fish behavior and local distribution. The reaction of fish to acoustic sources depends on the physiological state of the fish, past exposures, motivation (*e.g.,* feeding, spawning, migration), and other environmental factors. Key impacts to fishes may include behavioral responses, hearing damage, barotrauma (pressure-related injuries), and mortality.

Fishes, like other vertebrates, have a variety of different sensory systems to glean information from the ocean around them (Astrup and Mohl, 1993; Astrup, 1999; Braun and Grande, 2008; Carroll *et al.,* 2017; Hawkins and Johnstone, 1978; Ladich and Popper, 2004; Ladich and Schulz-Mirbach, 2016; Mann, 2016; Nedwell *et al.,* 2004; Popper *et al.,* 2003; Popper *et al.,* 2005). Depending on their hearing anatomy and peripheral sensory structures, which vary among species, fishes hear sounds using pressure and particle motion sensitivity capabilities and detect the motion of surrounding water (Fay *et al.,* 2008) (terrestrial vertebrates generally only detect pressure). Most marine fishes primarily detect particle motion using the inner ear and lateral line system, while some fishes possess additional morphological adaptations or specializations that can enhance their sensitivity to sound pressure, such as a gas-filled swim bladder (Braun and Grande, 2008; Popper and Fay, 2011).

Hearing capabilities vary considerably between different fish species with data only available for just over 100 species out of the 34,000 marine and freshwater fish species (Eschmeyer and Fong, 2016). In order to better understand acoustic impacts on fishes, fish hearing groups are defined by species that possess a similar continuum of anatomical features which result in varying degrees of hearing sensitivity (Popper and Hastings, 2009a). There are four hearing groups defined for all fish species (modified from Popper *et al.,* 2014) within this analysis and they include: fishes without a swim bladder (*e.g.,* flatfish, sharks, rays, *etc.*); fishes with a swim bladder not involved in hearing (*e.g.,* salmon, cod, pollock, *etc.*); fishes with a swim bladder involved in hearing (*e.g.,* sardines, anchovy, herring, *etc.*); and fishes with a swim bladder involved in hearing and high-frequency hearing (*e.g.,* shad and menhaden).

In terms of behavioral responses, Juanes *et al.* (2017) discuss the potential for negative impacts from anthropogenic soundscapes on fish, but the author's focus was on broader based sounds such as ship and boat noise sources. There are no detonations of explosives occurring underwater in the specified activity for this rulemaking, and occasional behavioral reactions to intermittent explosions occurring in-air at or above the water surface are unlikely to cause long-term consequences for individual fish or populations. Fish that experience hearing loss as a result of exposure to explosions may have a reduced ability to detect relevant sounds such as predators, prey, or social vocalizations. However, PTS has not been known to occur in fishes, and 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 (Popper *et al.,* 2014; Popper *et al.,* 2005; Smith *et al.,* 2006). It is not known if damage to auditory nerve fibers could occur and, if so, whether fibers would recover during this process. It is also possible for fish to be injured or killed by an explosion in the immediate vicinity of the surface from dropped or fired ordnance. Physical effects from pressure waves generated by in-air detonations at or above the water surface could potentially affect fish within proximity of training activities. The shock wave from an explosion occurring at or above the water surface may be 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 a higher potential for mortality than those without them (Gaspin, 1975; Gaspin *et al.,* 1976; Goertner *et al.,* 1994).

Nonetheless, Navy activities involving in-air explosions at or above the water surface are dispersed in space and time; therefore, repeated exposure of individual fishes is unlikely. Mortality and injury effects to fishes from explosives would be localized around the area of a given explosion at or above the water surface, but only if individual fish and the explosive (and immediate pressure field) were co-located at the same time. Fishes deeper in the water column or on the bottom would not be affected by water surface explosions. Repeated exposure of individual fish to sound and energy from Navy events involving in-air detonations at or above the water surface is not likely given fish movement patterns, especially schooling prey species. Most acoustic effects, if any, are expected to be short term and localized. Long-term consequences for fish populations, including key prey species within the GOA Study Area, would not be expected.

Vessels and surface targets do not normally collide with adult fish, most of which can detect and avoid them. Exposure of fishes to vessel strike stressors is limited to those fish groups that are large, slow moving, and may occur near the surface, such as basking sharks, which are not marine mammal prey species. 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 extremely unlikely and allowing the fish to return to their normal behavior after the ship or device passes. As a vessel approaches a fish, it could have a detectable behavioral or physiological response (*e.g.,* swimming away and increased heart rate) as the passing vessel displaces it. However, such reactions are not expected to have effects on the survival, growth, recruitment, or reproduction of these marine fish groups at the population level.

In addition to fish, prey sources such as marine invertebrates could potentially be impacted by sound stressors as a result of the planned activities. Data on response of invertebrates such as squid has been documented (de Soto, 2016; Sole *et al.,* 2017). Sole *et al.* (2017) reported physiological injuries to cuttlefish in cages placed at sea when exposed during a controlled exposure experiment to low-frequency sources (315 Hz, 139–142 dB re 1 μPa^2 and 400 Hz, 139–141 dB re 1 μPa^2). Fewtrell and McCauley (2012) reported squids maintained in cages displayed startle responses and behavioral changes when exposed to seismic air gun sonar (136–162 re 1 μPa^2-s). However, the sources Sole *et al.* (2017) and Fewtrell and

McCauley (2012) used are not similar and are much lower frequency than typical Navy sources or those included in the Specified Activity within the GOA Study Area. Nor do the studies address the issue of individual displacement outside of a zone of impact when exposed to sound. Squids, like most fish species, are likely more sensitive to low-frequency sounds, and may not perceive mid- and high-frequency sonars such as Navy sonars. As with fish, cumulatively individual and population-level impacts from exposure to Navy sonar and explosives for squid are not anticipated, and explosive impacts would be short term, localized, and likely to be inconsequential to invertebrate populations.

Explosions could kill or injure other 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. However, 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 GOA Study Area.

Military expended materials resulting from training 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 specified activity would not be expected to have measurable effects on populations of marine mammal prey species and marine mammal habitat.

Acoustic Habitat

Acoustic habitat is the soundscape which encompasses all of the sound present in a particular location and time, as a whole when considered from the perspective of the animals experiencing it. Animals produce sound for, or listen for sounds produced by, conspecifics (communication during feeding, mating, and other social activities), other animals (finding prey or avoiding predators), and the physical environment (finding suitable habitats, navigating). Together, sounds made by animals and the geophysical environment (*e.g.,* produced by earthquakes, lightning, wind, rain, waves) make up the natural contributions to the total acoustics of a place. These acoustic conditions, termed acoustic habitat, are one attribute of an animal's total habitat.

Soundscapes are also defined by, and acoustic habitat influenced by, the total contribution of anthropogenic sound. This may include incidental emissions from sources such as vessel traffic or may be intentionally introduced to the marine environment for data acquisition purposes (as in the use of air gun arrays) or for Navy training purposes (as in the use of sonar and other acoustic sources). Anthropogenic noise varies widely in its frequency, content, duration, and loudness, and these characteristics greatly influence the potential habitat-mediated effects to marine mammals (please also see the previous discussion on ''Masking''), which may range from local effects for brief periods of time to chronic effects over large areas and for longer durations. Depending on the extent of effects to habitat, animals may alter their communications signals (thereby potentially expending additional energy) or miss acoustic cues (either conspecific or adventitious). Problems arising from a failure to detect cues are more likely to occur when noise stimuli are chronic and overlap with biologically relevant cues used for communication, orientation, and predator/prey detection (Francis and Barber, 2013). For more detail on these concepts see, *e.g.,* Barber *et al.,* 2009; Pijanowski *et al.,* 2011; Francis and Barber, 2013; Lillis *et al.,* 2014, Hatch *et al.,* 2016; Duarte *et al.,* 2021).

The term ''listening area'' refers to the region of ocean over which sources of sound can be detected by an animal at the center of the space. Loss of communication space concerns the area over which a specific animal signal (used to communicate with conspecifics in biologically important contexts such as foraging or mating) can be heard, in noisier relative to quieter conditions (Clark *et al.,* 2009). Lost listening area concerns the more generalized contraction of the range over which animals would be able to detect a variety of signals of biological importance, including eavesdropping on predators and prey (Barber *et al.,* 2009). Such metrics do not, in and of themselves, document fitness consequences for the marine animals that live in chronically noisy environments. Long-term population-level consequences mediated through changes in the ultimate survival and reproductive success of individuals are difficult to study, and particularly so underwater. However, it is increasingly well documented that aquatic species rely on qualities of natural acoustic habitats, with researchers quantifying reduced detection of important ecological cues (*e.g.,* Francis and Barber, 2013; Slabbekoorn *et al.,* 2010) as well as survivorship consequences in several species (*e.g.,* Simpson *et al.,* 2014; Nedelec *et al.,* 2015).

The sounds produced during Navy training activities can be widely dispersed or concentrated in small areas for varying periods. Sound produced from training activities in the GOA Study Area is temporary and limited to a 21 consecutive day period from April to October, unlike other Navy Study Areas where training occurs year-round. Any anthropogenic noise attributed to training activities in the GOA Study Area would be temporary and the affected area would be expected to immediately return to the original state when these activities cease.

Water Quality

The 2011 GOA EIS/OEIS analyzed the potential effects on water quality from explosives, explosive byproducts, and military expended materials including their associated component metals and chemicals. This analysis remains accurate and complete, and is incorporated by reference in the 2016 GOA SEIS/OEIS and 2020 GOA DSEIS/OEIS. NMFS has reviewed this analysis and concurs that it reflects the best available science. 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 levels that would be expected to affect marine mammals. Explosion byproducts associated with high order detonations present no secondary stressors to marine mammals through sediment or water. However, low order detonations and unexploded ordnance present a potential for exposure, but only in the immediate vicinity of the ordnance. Degradation products of Royal Demolition Explosive are not toxic to marine organisms at realistic exposure levels (Carniel *et al.,* 2019; Rosen and Lotufo, 2010) and any remnant undetonated components from

explosives such as TNT, royal demolition explosive, and high melting explosive experience rapid biological and photochemical degradation in marine systems (Carniel *et al.,* 2019; Cruz-Uribe *et al.,* 2007; Juhasz and Naidu, 2007; Pavlostathis and Jackson, 2002; Singh *et al.,* 2009; Walker *et al.,* 2006).

The findings from multiple studies indicate the relatively low solubility of most explosives and their degradation products, metals, and chemicals meaning that concentrations of these contaminants in the marine environment, including those associated with either high-order or low-order detonations, are relatively low and readily diluted. A series of studies of a World War II dump site off Hawaii have demonstrated that only minimal concentrations of degradation products were detected in the adjacent sediments and that there was no detectable uptake in sampled organisms living on or in proximity to the site (Briggs *et al.,* 2016; Carniel *et al.,* 2019; Edwards *et al.,* 2016; Hawaii Undersea Military Munitions Assessment, 2010; Kelley *et al.,* 2016; Koide *et al.,* 2016). In the GOA Study Area, the concentration of unexploded ordnance, explosion byproducts, metals, and other chemicals would never exceed that of a World War II dump site. As another example, the Canadian Forces Maritime Experimental and Test Ranges near Nanoose, British Columbia, began operating in 1965 conducting test events for both U.S. and Canadian forces, which included some of the same activities proposed for the GOA Study Area. Environmental analyses of the impacts from military expended materials at Nanoose were documented in 1996 and 2005. The analyses concluded the Navy test activities ''. . . had limited and perhaps negligible effects on the natural environment'' (Environmental Science Advisory Committee, 2005). Based on these and other similar applicable findings from multiple Navy ranges, and based on the analysis in Section 3.3 (Water Resources) of the 2011 GOA Final SEIS/OEIS (incorporated by reference in the 2020 GOA Draft EIS/OEIS), indirect impacts on marine mammals from the training activities in the GOA Study Area would be negligible and would have no long-term effect on habitat.

Equipment used by the Navy within the GOA Study Area, including ships and other marine vessels, aircraft, and other equipment, are also potential sources of by-products. All equipment is properly maintained in accordance with applicable Navy and legal requirements. All such operating equipment meets Federal water quality standards, where applicable.

Estimated Take of Marine Mammals

This section indicates the number of takes that NMFS is proposing to authorize, which are based on the maximum amount of take that NMFS anticipates is reasonably likely to occur. NMFS coordinated closely with the Navy in the development of their incidental take application, and preliminarily agrees that the methods the Navy has put forth described herein to estimate take (including the model, thresholds, and density estimates), and the resulting numbers are based on the best available science and appropriate for authorization.

Takes would be in the form of harassment only. For a military readiness activity, 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).

Proposed authorized takes would primarily be in the form of Level B harassment, as use of the acoustic and explosive sources (*i.e.,* sonar and explosives) is most likely to result in the disruption of natural behavioral patterns to a point where they are abandoned or significantly altered (as defined specifically at the beginning of this section, but referred to generally as behavioral disturbance) or TTS for marine mammals. There is also the potential for Level A harassment, in the form of auditory injury that results from exposure to the sound sources utilized in training activities.

Generally speaking, for acoustic impacts NMFS estimates the amount and type of harassment by considering: (1) acoustic thresholds above which NMFS believes the best available science indicates marine mammals would experience behavioral disturbance or incur some degree of temporary or permanent hearing impairment; (2) the area or volume of water that would be ensonified above these levels in a day or event; (3) the density or occurrence of marine mammals within these ensonified areas; and (4) the number of days of activities or events.

Acoustic Thresholds

Using the best available science, NMFS, in coordination with the Navy, has established acoustic thresholds that identify the most appropriate received level of underwater sound above which marine mammals exposed to these sound sources could be reasonably expected to experience a disruption in behavior patterns to a point where they are abandoned or significantly altered (equated to onset of Level B harassment), or to incur TTS onset (equated to Level B harassment) or PTS onset (equated to Level A harassment). Thresholds have also been developed to identify the pressure and impulse levels above which animals may incur non-auditory injury or mortality from exposure to explosive detonations (although no non-auditory injury from explosives is anticipated as part of this rulemaking).

Despite the rapidly evolving science, there are still challenges in quantifying expected behavioral responses that qualify as take by Level B harassment, especially where the goal is to use one or two predictable indicators (*e.g.,* received level and distance) to predict responses that are also driven by additional factors that cannot be easily incorporated into the thresholds (*e.g.,* context). So, while the thresholds that identify Level B harassment by behavioral disturbance (referred to as ''behavioral harassment thresholds'') have been refined to better consider the best available science (*e.g.,* incorporating both received level and distance), they also still have some built-in conservative factors to address the challenge noted. For example, while duration of observed responses in the data are now considered in the thresholds, some of the responses that are informing take thresholds are of a very short duration, such that it is possible some of these responses might not always rise to the level of disrupting behavior patterns to a point where they are abandoned or significantly altered. We describe the application of this behavioral harassment threshold as identifying the maximum number of instances in which marine mammals could be reasonably expected to experience a disruption in behavior patterns to a point where they are abandoned or significantly altered. In summary, we believe these behavioral harassment thresholds are the most appropriate method for predicting Level B harassment by behavioral disturbance given the best available science and the associated uncertainty.

Hearing Impairment (TTS/PTS) and Non-Auditory Tissue Damage and Mortality

NMFS' Acoustic Technical Guidance (NMFS, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). The Acoustic Technical Guidance also identifies criteria to predict TTS, which is not considered injury and falls into the Level B harassment category. The Navy's planned activity includes the use of non-impulsive (sonar) and impulsive (explosives) sources.

These thresholds (Table 5 and Table 6) were developed by compiling and synthesizing the best available science and soliciting input multiple times from both the public and peer reviewers. The references, analysis, and methodology used in the development of the thresholds are described in Acoustic Technical Guidance, which may be accessed at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance.*

TABLE 5—ACOUSTIC THRESHOLDS IDENTIFYING THE ONSET OF TTS AND PTS FOR NON-IMPULSIVE SOUND SOURCES BY FUNCTIONAL HEARING GROUPS

Functional hearing group	Non-impulsive	
	TTS threshold SEL (weighted)	PTS threshold SEL (weighted)
Low-Frequency Cetaceans	179	199
Mid-Frequency Cetaceans	178	198
High-Frequency Cetaceans	153	173
Phocid Pinnipeds (Underwater)	181	201
Otarid Pinnipeds (Underwater)	199	219

Note: SEL thresholds in dB re: 1 μPa²-s accumulated over a 24-hr period.

Based on the best available science, the Navy (in coordination with NMFS) used the acoustic and pressure thresholds indicated in Table 6 to predict the onset of TTS, PTS, non-auditory tissue damage, and mortality for explosives (impulsive) and other impulsive sound sources.

TABLE 6—THRESHOLDS FOR TTS, PTS, NON-AUDITORY TISSUE DAMAGE, AND MORTALITY THRESHOLDS FOR MARINE MAMMALS FOR EXPLOSIVES

Functional hearing group	Species	Weighted onset TTS [1]	Weighted onset PTS	Slight GI tract injury	Slight lung injury	Mortality
Low-frequency cetaceans	All mysticetes	168 dB SEL or 213 dB Peak SPL.	183 dB SEL or 219 dB Peak SPL.	243 dB Peak SPL	Equation 1.	Equation 2.
Mid-frequency cetaceans	Most delphinids, medium and large toothed whales.	170 dB SEL or 224 dB Peak SPL.	185 dB SEL or 230 dB Peak SPL.	243 dB Peak SPL.		
High-frequency cetaceans	Porpoises and *Kogia spp.*	140 dB SEL or 196 dB Peak SPL.	155 dB SEL or 202 dB Peak SPL.	243 dB Peak SPL.		
Phocidae	Harbor seal, Hawaiian monk seal, Northern elephant seal.	170 dB SEL or 212 dB Peak SPL.	185 dB SEL or 218 dB Peak SPL.	243 dB Peak SPL.		
Otariidae	California sea lion, Guadalupe fur seal, Northern fur seal.	188 dB SEL or 226 dB Peak SPL.	203 dB SEL or 232 dB Peak SPL.	243 dB Peak SPL.		

Notes:
Equation 1: $47.5M^{1/3}(1+[D_{Rm}/10.1])^{1/6}$ Pa-sec.
Equation 2: $103M^{1/3}(1+[D_{Rm}/10.1])^{1/6}$ Pa-sec.
M = mass of the animals in kg.
D_{Rm} = depth of the receiver (animal) in meters.
SPL = sound pressure level.
Weighted SEL thresholds in dB re: 1 μPa²-s accumulated over a 24-h period.
[1] Peak thresholds are unweighted.

The criteria used to assess the onset of TTS and PTS due to exposure to sonars (non-impulsive, see Table 5 above) are discussed further in the Navy's rulemaking/LOA application (see Hearing Loss from Sonar and Other Transducers in Chapter 6, Section 6.4.2.1, Methods for Analyzing Impacts from Sonars and Other Transducers). Refer to the *Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III)* report (U.S. Department of the Navy, 2017c) for detailed information on how the criteria and thresholds were derived, and to Section 3.8.3.1.1.2 of the 2020 GOA DSEIS/OEIS for a review of TTS research published following development of the criteria and thresholds applied in the Navy's analysis and in NMFS' Acoustic Technical Guidance. Further, since publication of the 2020 GOA DSEIS/OEIS, several additional studies associated with TTS in harbor porpoises and seals have been published (*e.g.,* Kastelein *et al.,* 2020d; Kastelein *et al.,* 2021a and 2021b; Sills *et al.,* 2020). NMFS is aware of these recent papers and is currently working with the Navy to update NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing Version 2.0 (Acoustic Technical Guidance; NMFS 2018) to reflect relevant papers that have been published since the 2018 update on our 3–5 year update schedule in the Acoustic Technical Guidance. First, we

note that the recent peer-reviewed updated marine mammal noise exposure criteria by Southall *et al.* (2019a) provide identical PTS and TTS thresholds and weighting functions to those provided in NMFS' Acoustic Technical Guidance.

NMFS will continue to review and evaluate new relevant data as it becomes available and consider the impacts of those studies on the Acoustic Technical Guidance to determine what revisions/updates may be appropriate. However, any such revisions must undergo peer and public review before being adopted, as described in the Acoustic Guidance methodology. While some of the relevant data may potentially suggest changes to TTS/PTS thresholds for some species, any such changes would not be expected to change the predicted take estimates in a manner that would change the necessary determinations supporting the issuance of these regulations, and the data and values used in this rule reflect the best available science.

Non-auditory injury (*i.e.,* other than PTS) and mortality from sonar and other transducers is so unlikely as to be discountable under normal conditions for the reasons explained under the Potential Effects of Specified Activities on Marine Mammals and Their Habitat section—*Acoustically-Induced Bubble Formation Due to Sonars and Other Pressure-related Impacts* and is therefore not considered further in this analysis.

Level B Harassment by Behavioral Disturbance

Though significantly driven by received level, the onset of Level B harassment by behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source (*e.g.,* frequency, predictability, duty cycle), the environment (*e.g.,* bathymetry), and the receiving animals (hearing, motivation, experience, demography, behavioral context) and can be difficult to predict (Ellison *et al.,* 2011; Southall *et al.,* 2007). Based on what the available science indicates and the practical need to use thresholds based on a factor, or factors, that are both predictable and measurable for most activities, NMFS uses generalized acoustic thresholds based primarily on received level (and distance in some cases) to estimate the onset of Level B harassment by behavioral disturbance.

Sonar

As noted above, the Navy coordinated with NMFS to develop, and propose for use in this rule, thresholds specific to their military readiness activities utilizing active sonar that identify at what received level and distance Level B harassment by behavioral disturbance would be expected to result. These thresholds are referred to as ''behavioral harassment thresholds'' throughout the rest of the rule. These behavioral harassment thresholds consist of behavioral response functions (BRFs) and associated cutoff distances, and are also referred to, together, as ''the criteria.'' These criteria are used to estimate the number of animals that may exhibit a behavioral response that rises to the level of a take when exposed to sonar and other transducers. The way the criteria were derived is discussed in detail in the *Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III)* report (U.S. Department of the Navy, 2017c). Developing these behavioral harassment criteria involved multiple steps. All peer-reviewed published behavioral response studies conducted both in the field and on captive animals were examined in order to understand the breadth of behavioral responses of marine mammals to tactical sonar and other transducers. NMFS has carefully reviewed the Navy's criteria, *i.e.,* BRFs and cutoff distances for the species, and agrees that it is the best available science and is the appropriate method to use at this time for determining impacts to marine mammals from military sonar and other transducers and for calculating take and to support the determinations made in this proposed rule.

As discussed above, marine mammal responses to sound (some of which are considered disturbances that rise to the level of a take) are highly variable and context specific, *i.e.,* they are affected by differences in acoustic conditions; differences between species and populations; differences in gender, age, reproductive status, or social behavior; and other prior experience of the individuals. This means that there is support for considering alternative approaches for estimating Level B harassment by behavioral disturbance. Although the statutory definition of Level B harassment for military readiness activities means that a natural behavior pattern of a marine mammal is significantly altered or abandoned, the current state of science for determining those thresholds is somewhat unsettled.

In its analysis of impacts associated with sonar acoustic sources (which was coordinated with NMFS), the Navy used an updated conservative approach that likely overestimates the number of takes by Level B harassment due to behavioral disturbance and response. Many of the behavioral responses identified using the Navy's quantitative analysis are most likely to be of moderate severity as described in the Southall *et al.* (2007) behavioral response severity scale. These ''moderate'' severity responses were considered significant if they were sustained for the duration of the exposure or longer. Within the Navy's quantitative analysis, many reactions are predicted from exposure to sound that may exceed an animal's threshold for Level B harassment by behavioral disturbance for only a single exposure (a few seconds) to several minutes, and it is likely that some of the resulting estimated behavioral responses that are counted as Level B harassment would not constitute ''significantly altering or abandoning natural behavioral patterns.'' The Navy and NMFS have used the best available science to address the challenging differentiation between significant and non-significant behavioral reactions (*i.e.,* whether the behavior has been abandoned or significantly altered such that it qualifies as harassment), but have erred on the cautious side where uncertainty exists (*e.g.,* counting these lower duration reactions as take), which likely results in some degree of overestimation of Level B harassment by behavioral disturbance. We consider application of these behavioral harassment thresholds, therefore, as identifying the maximum number of instances in which marine mammals could be reasonably expected to experience a disruption in behavior patterns to a point where they are abandoned or significantly altered (*i.e.,* Level B harassment). Because this is the most appropriate method for estimating Level B harassment given the best available science and uncertainty on the topic, it is these numbers of Level B harassment by behavioral disturbance that are analyzed in the Preliminary Analysis and Negligible Impact Determination section and would be authorized.

In the Navy's acoustic impact analyses during Phase II (the previous phase of Navy testing and training, 2017–2022, see also Navy's *Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis Technical Report,* 2012), the likelihood of Level B harassment by behavioral disturbance in response to sonar and other transducers was based on a probabilistic function (termed a BRF), that related the likelihood (*i.e.,* probability) of a behavioral response (at the level of a Level B harassment) to the received SPL. The BRF was used to estimate the percentage of an exposed population that is likely to exhibit Level B

harassment due to altered behaviors or behavioral disturbance at a given received SPL. This BRF relied on the assumption that sound poses a negligible risk to marine mammals if they are exposed to SPL below a certain ''basement'' value. Above the basement exposure SPL, the probability of a response increased with increasing SPL. Two BRFs were used in Navy acoustic impact analyses: BRF1 for mysticetes and BRF2 for other species. BRFs were not used for beaked whales during Phase II analyses. Instead, a step function at an SPL of 140 dB re: 1 μPa was used for beaked whales as the threshold to predict Level B harassment by behavioral disturbance. Similarly, a 120 dB re: 1 μP step function was used during Phase II for harbor porpoises.

Developing the behavioral harassment criteria for Phase III (the current phase of Navy training and testing activities) involved multiple steps: all available behavioral response studies conducted both in the field and on captive animals were examined to understand the breadth of behavioral responses of marine mammals to sonar and other transducers (see also Navy's *Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III) Technical Report,* 2017). Six behavioral response field studies with observations of 14 different marine mammal species reactions to sonar or sonar-like signals and 6 captive animal behavioral studies with observations of 8 different species reactions to sonar or sonar-like signals were used to provide a robust data set for the derivation of the Navy's Phase III marine mammal behavioral response criteria. The current criteria have been rigorously vetted within the Navy community, among scientists during expert elicitation, and then reviewed by the public before being applied. All behavioral response research that has been published since the derivation of the Navy's Phase III criteria (December 2016) has been considered and is consistent with the current BRFs. While it is unreasonable to revise and update the criteria and risk functions every time a new study is published, these new studies provide additional information, and NMFS and the Navy are considering them for updates to the criteria in the future, when the next round of updated criteria will be developed. The Navy and NMFS continue to evaluate the information as new science becomes available.

Marine mammal species were placed into behavioral criteria groups based on their known or suspected behavioral sensitivities to sound. In most cases these divisions were driven by taxonomic classifications (*e.g.,* mysticetes, pinnipeds). The data from the behavioral studies were analyzed by looking for significant responses, or lack thereof, for each experimental session.

The Navy used cutoff distances beyond which the potential of significant behavioral responses (and therefore Level B harassment) is considered to be unlikely (see Table 7 below). These distances were determined by examining all available published field observations of behavioral reactions to sonar or sonar-like signals that included the distance between the sound source and the marine mammal. The longest distance, rounded up to the nearest 5-km increment, was chosen as the cutoff distance for each behavioral criteria group (*i.e.,* odontocetes, pinnipeds, mysticetes, beaked whales, and harbor porpoise). For animals within the cutoff distance, BRFs for each behavioral criteria group based on a received SPL as presented in Chapter 6, Section 6.4.2.1 (Methods for Analyzing Impacts from Sonars and other Transducers) of the Navy's rulemaking/LOA application were used to predict the probability of a potential significant behavioral response. For training activities that contain multiple platforms or tactical sonar sources that exceed 215 dB re: 1 μPa at 1 m, this cutoff distance is substantially increased (*i.e.,* doubled) from values derived from the literature. The use of multiple platforms and intense sound sources are factors that probably increase responsiveness in marine mammals overall (however, we note that helicopter dipping sonars were considered in the intense sound source group, despite lower source levels, because of data indicating that marine mammals are sometimes more responsive to the less predictable employment of this source). There are currently few behavioral observations under these circumstances; therefore, the Navy conservatively predicted significant behavioral responses that would rise to Level B harassment at farther ranges than shown in Table 7, versus less intense events.

TABLE 7—CUTOFF DISTANCES FOR MODERATE SOURCE LEVEL, SINGLE PLATFORM TRAINING EVENTS AND FOR ALL OTHER EVENTS WITH MULTIPLE PLATFORMS OR SONAR WITH SOURCE LEVELS AT OR EXCEEDING 215 dB re: 1 μPa at 1 m

Criteria group	Moderate SL/single platform cutoff distance (km)	High SL/multi-platform cutoff distance (km)
Odontocetes	10	20
Pinnipeds	5	10
Mysticetes	10	20
Beaked Whales	25	50
Harbor Porpoise	20	40

Notes: dB re: 1 μPa at 1 m = decibels referenced to 1 micropascal at 1 meter, km = kilometer, SL = source level.

The range to received sound levels in 6-dB steps from three representative sonar bins and the percentage of animals that may be taken by Level B harassment under each BRF are shown in Tables 8 through 10. Cells are shaded if the mean range value for the specified received level exceeds the distance cutoff distance for a particular group and therefore are not included in the estimated take. See Chapter 6, Section 6.4.2.1 (Methods for Analyzing Impacts from Sonars and Other Transducers) of the Navy's rulemaking/LOA application for further details on the derivation and use of the BRFs, thresholds, and the cutoff distances to identify takes by Level B harassment, which were coordinated with NMFS. As noted previously, NMFS carefully reviewed, and contributed to, the Navy's proposed behavioral harassment thresholds (*i.e.,* the BRFs and the cutoff distances) for the species, and agrees that these methods represent the best available science at this time for determining impacts to marine mammals from sonar and other transducers.

Tables 8 through 10 identify the maximum likely percentage of exposed individuals taken at the indicated received level and associated range (in which marine mammals would be

reasonably expected to experience a disruption in behavior patterns to a point where they are abandoned or significantly altered) for mid-frequency active sonar (MFAS).

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Table 8-- Ranges to Estimated Level B Harassment by Behavioral Disturbance for Sonar Bin MF1 Over a Representative Range of Environments Within the TMAA

Received Level (dB re 1 μPa)	Mean Range (meters) with Minimum and Maximum Values in Parentheses	Probability of Behavioral Disturbance for Sonar Bin MF1 (Percent)				
		Beaked whales	Harbor Porpoise	Mysticetes	Odontocetes	Pinnipeds
196	105 (100–110)	100	100	100	100	100
190	240 (240–240)	100	100	98	100	100
184	498 (490–525)	100	100	88	99	98
178	1,029 (950–1,275)	100	100	59	97	92
172	3,798 (1,525–7,025)	99	100	30	91	76
166	8,632 (2,775–14,775)	97	100	20	78	48
160	15,000 (3,025–26,525)	93	100	18	58	27
154	23,025 (3,275–47,775)	83	100	17	40	18
148	47,693 (10,275–54,025)	66	100	16	29	16
142	53,834 (12,025–72,025)	45	100	13	25	15
136	60,035 (13,275–74,525)	28	100	9	23	15
130	72,207 (14,025–75,025)	18	100	5	20	15
124	73,169 (17,025–75,025)	14	100	2	17	14
118	72,993 (25,025–75,025)	12	0	1	12	13
112	72,940 (27,525–75,025)	11	0	0	6	9
106	73,016 (28,525–75,025)	11	0	0	3	5
100	73,320 (30,025–75,025)	8	0	0	1	2

Notes: (1) Cells are shaded if the mean range value for the specified received level exceeds the distance cut-off range for a particular hearing group. Any impacts within the cut-off range for a criteria group are included in the estimated impacts. Cut-off ranges in this table are for activities with high source levels or multiple platforms. See Table 7 for behavioral cutoff distances. (2) dB re 1 μPa = decibels referenced to 1 micropascal, MF = mid-frequency

Table 9-- Ranges to Estimated Level B Harassment by Behavioral Disturbance for Sonar Bin MF4 Over a Representative Range of Environments Within the TMAA

Received Level (dB re 1 μPa)	Mean Range (meters) with Minimum and Maximum Values in Parentheses	Probability of Behavioral Disturbance for Sonar Bin MF4 (Percent)				
		Beaked whales	Harbor Porpoise	Mysticetes	Odontocetes	Pinnipeds
196	8 (0–8)	100	100	100	100	100
190	17 (0–17)	100	100	98	100	100
184	34 (0–35)	100	100	88	99	98
178	69 (0–75)	100	100	59	97	92
172	156 (120–190)	99	100	30	91	76
166	536 (280–1,000)	97	100	20	78	48
160	1,063 (470–1,775)	93	100	18	58	27
154	2,063 (675–4,275)	83	100	17	40	18
148	5,969 (1,025–9,275)	66	100	16	29	16
142	12,319 (1,275–26,025)	45	100	13	25	15
136	26,176 (1,775–40,025)	28	100	9	23	15
130	42,963 (2,275–54,775)	18	100	5	20	15
124	53,669 (2,525–65,775)	14	100	2	17	14
118	63,387 (2,775–75,025)	12	0	1	12	13
112	71,709 (3,025–75,025)	11	0	0	6	9
106	73,922 (22,775–75,025)	11	0	0	3	5
100	73,923 (25,525–75,025)	8	0	0	1	2

Notes: (1) Cells are shaded if the mean range value for the specified received level exceeds the distance cut-off range for a particular hearing group. Any impacts within the cut-off range for a criteria group are included in the estimated impacts. Cut-off ranges in this table are for activities with high source levels or multiple platforms. See Table 7 for behavioral cutoff distances. (2) dB re 1 μPa = decibels referenced to 1 micropascal, MF = mid-frequency

Table 10-- Ranges to Estimated Level B Harassment by Behavioral Disturbance for Sonar Bin MF5 Over a Representative Range of Environments Within the TMAA

Received Level (dB re 1 μPa)	Mean Range (meters) with Minimum and Maximum Values in Parentheses	Probability of Behavioral Disturbance for Sonar Bin MF5 (Percent)				
		Beaked whales	Harbor Porpoise	Mysticetes	Odontocetes	Pinnipeds
196	0 (0–0)	100	100	100	100	100
190	1 (0–3)	100	100	98	100	100
184	4 (0–7)	100	100	88	99	98
178	14 (0–15)	100	100	59	97	92
172	29 (0–30)	99	100	30	91	76
166	59 (0–65)	97	100	20	78	48
160	130 (0–170)	93	100	18	58	27
154	349 (0–1,025)	83	100	17	40	18
148	849 (410–2,275)	66	100	16	29	16
142	1,539 (625–3,775)	45	100	13	25	15
136	2,934 (950–8,525)	28	100	9	23	15
130	6,115 (1,275–10,275)	18	100	5	20	15
124	9,764 (1,525–16,025)	14	100	2	17	14
118	13,830 (1,775–24,775)	12	0	1	12	13
112	18,970 (2,275–30,775)	11	0	0	6	9
106	25,790 (2,525–38,525)	11	0	0	3	5
100	36,122 (2,775–46,775)	8	0	0	1	2

Notes: (1) Cells are shaded if the mean range value for the specified received level exceeds the distance cut-off range for a particular hearing group. Any impacts within the cut-off range for a criteria group are included in the estimated impacts. Cut-off ranges in this table are for activities with high source levels or multiple platforms. See Table 7 for behavioral cutoff distances. (2) dB re 1 μPa = decibels referenced to 1 micropascal, MF = mid-frequency

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Explosives

Phase III explosive criteria for behavioral harassment thresholds for marine mammals is the functional hearing groups' TTS onset threshold (in SEL) minus 5 dB (see Table 11 below and Table 6 for the TTS thresholds for explosives) for events that contain multiple impulses from explosives underwater. This is the same approach as taken in Phase II for explosive analysis. See the *Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III)* report (U.S. Department of the Navy, 2017c) for detailed information on how the criteria and thresholds were derived. NMFS continues to concur that this approach represents the best available science for determining impacts to marine mammals from explosives. As noted previously, detonations occurring in air at a height of 33 ft (10 m) or less above the water surface, and detonations occurring directly on the water surface were modeled to detonate at a depth of 0.3 ft (0.1 m) below the water surface. There are no detonations of explosives occurring underwater as part of the planned activities.

TABLE 11—THRESHOLDS FOR LEVEL B HARASSMENT BY BEHAVIORAL DISTURBANCE FOR EXPLOSIVES FOR MARINE MAMMALS

Medium	Functional hearing group	SEL (weighted)
Underwater	Low-frequency cetaceans	163
Underwater	Mid-frequency cetaceans	165
Underwater	High-frequency cetaceans	135
Underwater	Phocids	165
Underwater	Otariids	183

Note: Weighted SEL thresholds in dB re: 1 $\mu Pa^2 s$ underwater

Navy's Acoustic Effects Model

The Navy's Acoustic Effects Model calculates sound energy propagation from sonar and other transducers and explosives during naval activities and the sound received by animat dosimeters. Animat dosimeters are virtual representations of marine mammals distributed in the area around the modeled naval activity and each dosimeter records its individual sound ''dose.'' The model bases the distribution of animats over the TMAA, the portion of the GOA Study Area where sonar and other transducers and explosives are proposed for use, on the density values in the Navy Marine Species Density Database and distributes animats in the water column proportional to the known time that species spend at varying depths.

The model accounts for environmental variability of sound propagation in both distance and depth when computing the sound level received by the animats. The model conducts a statistical analysis based on multiple model runs to compute the estimated effects on animals. The number of animats that exceed the thresholds for effects is tallied to provide an estimate of the number of marine mammals that could be affected.

Assumptions in the Navy model intentionally err on the side of overestimation when there are unknowns. Naval activities are modeled as though they would occur regardless of proximity to marine mammals, meaning that no mitigation is considered (*i.e.,* no power down or shut down modeled) and without any avoidance of the activity by the animal. 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. For more information on this process, see the discussion in the *Take Request* subsection below. All explosives used in the TMAA would detonate in the air at or above the water surface. However, for this analysis, detonations occurring in air at a height of 33 ft. (10 m) or less above the water surface, and detonations occurring directly on the water surface were modeled to detonate at a depth of 0.3 ft. (0.1 m) below the water surface since there is currently no other identified methodology for modeling potential effects to marine mammals that are underwater as a result of detonations occurring at or above the surface of the ocean. This overestimates the amount of explosive and acoustic energy entering the water.

The model estimates the impacts caused by individual training exercises. During any individual modeled event, impacts to individual animats are considered over 24-hour periods. The animats do not represent actual animals, but rather they represent a distribution of animals based on density and abundance data, which allows for a statistical analysis of the number of instances that marine mammals may be exposed to sound levels resulting in an effect. Therefore, the model estimates the number of instances in which an effect threshold was exceeded over the course of a year, but does not estimate the number of individual marine mammals that may be impacted over a year (*i.e.,* some marine mammals could be impacted several times, while others would not experience any impact). A detailed explanation of the Navy's Acoustic Effects Model is provided in the technical report *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing* (U.S. Department of the Navy, 2018).

Range to Effects

This section provides range to effects for sonar and other active acoustic sources as well as explosives to specific acoustic thresholds determined using the Navy Acoustic Effects Model. Marine mammals exposed within these ranges for the shown duration are predicted to experience the associated effect. Range to effects is important information in not only predicting acoustic impacts, but also in verifying the accuracy of model results against real-world situations and determining adequate mitigation ranges to avoid higher level effects, especially physiological effects to marine mammals.

Sonar

The ranges to received sound levels in 6-dB steps from three representative sonar bins and the percentage of the total number of animals that may be disturbed (and therefore Level B harassment) under each BRF are shown in Table 8 though Table 10 above. See Chapter 6, Section 6.4.2.1 (Methods for Analyzing Impacts from Sonars and Other Transducers) of the Navy's rulemaking/LOA application for additional details on the derivation and use of the BRFs, thresholds, and the cutoff distances that are used to identify Level B harassment by behavioral disturbance. NMFS has reviewed the range distance to effect data provided by the Navy and concurs with the analysis.

The ranges to PTS for three representative sonar systems for an exposure of 30 seconds is shown in Table 12 relative to the marine mammal's functional hearing group. This period (30 seconds) was chosen based on examining the maximum amount of time a marine mammal would realistically be exposed to levels that could cause the onset of PTS based on platform (*e.g.,* ship) speed and a nominal animal swim speed of approximately 1.5 m per second. The ranges provided in the table include the average range to PTS, as well as the range from the minimum to the maximum distance at which PTS is possible for each hearing group.

TABLE 12—RANGES TO PERMANENT THRESHOLD SHIFT (METERS) FOR THREE REPRESENTATIVE SONAR SYSTEMS

Hearing group	Approximate range in meters for PTS from 30 second exposure [1]		
	Sonar bin MF1	Sonar bin MF4	Sonar bin MF5
High-frequency cetaceans	180 (180–180)	31 (30–35)	9 (8–10)
Low-frequency cetaceans	65 (65–65)	13 (0–15)	0 (0–0)
Mid-frequency cetaceans	16 (16–16)	3 (3–3)	0 (0–0)
Otariids [2]	6 (6–6)	0 (0–0)	0 (0–0)
Phocids [2]	45 (45–45)	11 (11–11)	0 (0–0)

[1] PTS ranges extend from the sonar or other transducer sound source to the indicated distance. The average range to PTS is provided as well as the range from the estimated minimum to the maximum range to PTS in parenthesis.

[2] Otariids and phocids are separated because true seals (phocids) generally dive much deeper than sea lions and fur seals (otariids).

Notes: MF = mid-frequency, PTS = permanent threshold shift.

The tables below illustrate the range to TTS for 1, 30, 60, and 120 seconds from three representative sonar systems (see Table 13 through Table 15).

TABLE 13—RANGES TO TEMPORARY THRESHOLD SHIFT (METERS) FOR SONAR BIN MF1 OVER A REPRESENTATIVE RANGE OF ENVIRONMENTS WITHIN THE TMAA

Hearing group	Approximate TTS ranges (meters) [1]			
	Sonar bin MF1			
	1 second	30 seconds	60 seconds	120 seconds
High-frequency cetaceans	3,554 (1,525–6,775)	3,554 (1,525–6,775)	5,325 (2,275–9,525)	7,066 (2,525–13,025)
Low-frequency cetaceans	920 (850–1,025)	920 (850–1,025)	1,415 (1,025–2,025)	2,394 (1,275–4,025)
Mid-frequency cetaceans	209 (200–210)	209 (200–210)	301 (300–310)	376 (370–390)
Otariids	65 (65–65)	65 (65–65)	100 (100–110)	132 (130–140)
Phocids	673 (650–725)	673 (650–725)	988 (900–1,025)	1,206 (1,025–1,525)

[1] Ranges to TTS represent the model predictions in different areas and seasons within the TMAA. The zone in which animals are expected to incur TTS extends from onset-PTS to the distance indicated. The average range to TTS is provided as well as the range from the estimated minimum to the maximum range to TTS in parenthesis.
Notes: MF = mid-frequency, TTS = temporary threshold shift.

TABLE 14—RANGES TO TEMPORARY THRESHOLD SHIFT (METERS) FOR SONAR BIN MF4 OVER A REPRESENTATIVE RANGE OF ENVIRONMENTS WITHIN THE TMAA

Hearing group	Approximate TTS ranges (meters) [1]			
	Sonar bin MF4			
	1 second	30 seconds	60 seconds	120 seconds
High-frequency cetaceans	318 (220–550)	686 (430–1,275)	867 (575–1,525)	1,225 (825–2,025)
Low-frequency cetaceans	77 (0–100)	175 (130–340)	299 (190–550)	497 (280–1,000)
Mid-frequency cetaceans	22 (22–22)	35 (35–35)	50 (50–50)	71 (70–75)
Otariids	8 (8–8)	15 (15–15)	19 (19–19)	25 (25–25)
Phocids	67 (65–70)	123 (110–150)	172 (150–210)	357 (240–675)

[1] Ranges to TTS represent the model predictions in different areas and seasons within the TMAA. The zone in which animals are expected to incur TTS extends from onset-PTS to the distance indicated. The average range to TTS is provided as well as the range from the estimated minimum to the maximum range to TTS in parenthesis.
Notes: MF = mid-frequency, TTS = temporary threshold shift.

TABLE 15—RANGES TO TEMPORARY THRESHOLD SHIFT (METERS) FOR SONAR BIN MF5 OVER A REPRESENTATIVE RANGE OF ENVIRONMENTS WITHIN THE TMAA

Hearing group	Approximate TTS ranges (meters) [1]			
	Sonar bin MF5			
	1 second	30 seconds	60 seconds	120 seconds
High-frequency cetaceans	117 (110–140)	117 (110–140)	176 (150–320)	306 (210–800)
Low-frequency cetaceans	9 (0–12)	9 (0–12)	13 (0–17)	19 (0–24)
Mid-frequency cetaceans	5 (0–9)	5 (0–9)	12 (11–13)	18 (17–18)
Otariids	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Phocids	9 (8–10)	9 (8–10)	14 (14–15)	21 (21–22)

[1] Ranges to TTS represent the model predictions in different areas and seasons within the TMAA. The zone in which animals are expected to incur TTS extends from onset-PTS to the distance indicated. The average range to TTS is provided as well as the range from the estimated minimum to the maximum range to TTS in parenthesis.
Notes: MF = mid-frequency, TTS = temporary threshold shift.

Explosives

The following section provides the range (distance) over which specific physiological or behavioral effects are expected to occur based on the explosive criteria (see Chapter 6, Section 6.5.2 (Impacts from Explosives) of the Navy's rulemaking/LOA application and the *Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III)* report (U.S. Department of the Navy, 2017c)) and the explosive propagation calculations from the Navy Acoustic Effects Model (see Chapter 6, Section 6.5.2.2 (Impact Ranges for Explosives) of the Navy's rulemaking/LOA application). The range to effects are shown for a range of explosive bins, from E5 (greater than 5–10 lbs net explosive weight) to E12 (greater than 650 lbs to 1,000 lbs net explosive weight) (Tables 16 through 29). Ranges are determined by modeling the distance that noise from an explosion would need to propagate to reach exposure level thresholds specific to a hearing group that would cause behavioral response (to the degree of Level B harassment), TTS, PTS, and non-auditory injury. NMFS has reviewed the range distance to effect data provided by the Navy and concurs with the analysis. Range to effects is important information in not only predicting impacts from explosives, but

also in verifying the accuracy of model results against real-world situations and determining adequate mitigation ranges to avoid higher level effects, especially physiological effects to marine mammals. For additional information on how ranges to impacts from explosions were estimated, see the technical report *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing* (U.S. Navy, 2018).

Tables 16 through 27 show the minimum, average, and maximum ranges to onset of auditory and likely behavioral effects that rise to the level of Level B harassment based on the developed thresholds. Ranges are provided for a representative source depth and cluster size (the number of rounds fired, or buoys dropped, within a very short duration) for each bin. For events with multiple explosions, sound from successive explosions can be expected to accumulate and increase the range to the onset of an impact based on SEL thresholds. Ranges to non-auditory injury and mortality are shown in Table 28 and Table 29, respectively.

No underwater detonations are planned as part of the Navy's activities, but marine mammals could be exposed to in-air detonations at or above the water surface. The Navy Acoustic Effects Model cannot account for the highly non-linear effects of cavitation and surface blow off for shallow underwater explosions, nor can it estimate the explosive energy entering the water from a low-altitude detonation. Thus, for this analysis, sources detonating in-air at or above (within 10 m above) the water surface are modeled as if detonating completely underwater at a depth of 0.1 m, with all energy reflected into the water rather than released into the air. Therefore, the amount of explosive and acoustic energy entering the water, and consequently the estimated ranges to effects, are likely to be overestimated.

Table 16 shows the minimum, average, and maximum ranges to onset of auditory and likely behavioral effects that rise to the level of Level B harassment for high-frequency cetaceans based on the developed thresholds.

TABLE 16—SEL-BASED RANGES TO ONSET PTS, ONSET TTS, AND BEHAVIORAL DISTURBANCE (IN METERS) FOR HIGH-FREQUENCY CETACEANS

Range to effects for explosives: high-frequency cetaceans [1]					
Bin[2]	Source depth (m)	Cluster size	PTS	TTS	Behavioral
E5	0.1	1	910 (850–975)	1,761 (1,275–2,275)	2,449 (1,775–3,275)
		7	1,275 (1,025–1,525)	3,095 (2,025–4,525)	4,664 (2,275–7,775)
E9	0.1	1	1,348 (1,025–1,775)	3,615 (2,025–5,775)	5,365 (2,525–8,525)
E10	0.1	1	1,546 (1,025–2,025)	4,352 (2,275–7,275)	5,949 (2,525–9,275)
E12	0.1	1	1,713 (1,275–2,025)	5,115 (2,275–7,775)	6,831 (2,775–10,275)

[1] Average distance (meters) to PTS, TTS, and behavioral thresholds are depicted above the minimum and maximum distances which are in parentheses. Values depict the range produced by SEL hearing threshold criteria levels. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, SEL = sound exposure level, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 17 shows the minimum, average, and maximum ranges to onset of auditory effects for high-frequency cetaceans based on the developed thresholds.

TABLE 17—PEAK PRESSURE-BASED RANGES TO ONSET PTS AND ONSET TTS (IN METERS) FOR HIGH FREQUENCY CETACEANS

Range to effects for explosives: high-frequency cetaceans[1]				
Bin[2]	Source depth (m)	Cluster size	PTS	TTS
E5	0.1	1	1,161 (1,000–1,525)	1,789 (1,025–2,275)
		7	1,161 (1,000–1,525)	1,789 (1,025–2,275)
E9	0.1	1	2,331 (1,525–2,775)	5,053 (2,025–9,275)
E10	0.1	1	2,994 (1,775–4,525)	7,227 (2,025–14,775)
E12	0.1	1	4,327 (2,025–7,275)	10,060 (2,025–22,275)

[1] Average distance (meters) is shown with the minimum and maximum distances due to varying propagation environments in parentheses. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 18 shows the minimum, average, and maximum ranges to onset of auditory and likely behavioral effects that rise to the level of Level B harassment for low-frequency cetaceans based on the developed thresholds.

TABLE 18—SEL-BASED RANGES TO ONSET PTS, ONSET TTS, AND BEHAVIORAL DISTURBANCE (IN METERS) FOR LOW-FREQUENCY CETACEANS

Range to effects for explosives: low-frequency cetaceans [1]					
Bin [2]	Source depth (m)	Cluster size	PTS	TTS	Behavioral
E5	0.1	1	171 (100–190)	633 (230–825)	934 (310–1,525)
		7	382 (170–450)	1,552 (380–5,775)	3,712 (600–13,025)
E9	0.1	1	453 (180–550)	3,119 (550–9,025)	6,462 (1,275–19,275)
E10	0.1	1	554 (210–700)	4,213 (600–13,025)	9,472 (1,775–27,275)
E12	0.1	1	643 (230–825)	6,402 (1,275–19,775)	13,562 (2,025–34,775)

[1] Average distance (meters) to PTS, TTS, and behavioral thresholds are depicted above the minimum and maximum distances which are in parentheses. Values depict the range produced by SEL hearing threshold criteria levels. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, SEL = sound exposure level, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 19 shows the minimum, average, and maximum ranges to onset of auditory effects for low-frequency cetaceans based on the developed thresholds.

TABLE 19—PEAK PRESSURE-BASED RANGES TO ONSET PTS AND ONSET TTS (IN METERS) FOR LOW FREQUENCY CETACEANS

Range to effects for explosives: low-frequency cetaceans [1]				
Bin [2]	Source depth (m)	Cluster size	PTS	TTS
E5	0.1	1	419 (170–500)	690 (210–875)
		7	419 (170–500)	690 (210–875)
E9	0.1	1	855 (270–1,275)	1,269 (400–1,775)
E10	0.1	1	953 (300–1,525)	1,500 (450–2,525)
E12	0.1	1	1,135 (360–1,525)	1,928 (525–4,775)

[1] Average distance (meters) is shown with the minimum and maximum distances due to varying propagation environments in parentheses. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 20 shows the minimum, average, and maximum ranges to onset of auditory and likely behavioral effects that rise to the level of Level B harassment for mid-frequency cetaceans based on the developed thresholds.

TABLE 20—SEL-BASED RANGES TO ONSET PTS, ONSET TTS, AND BEHAVIORAL DISTURBANCE (IN METERS) FOR MID-FREQUENCY CETACEANS

Range to effects for explosives: mid-frequency cetaceans [1]					
Bin [2]	Source depth (m)	Cluster size	PTS	TTS	Behavioral
E5	0.1	1	79 (75–80)	363 (360–370)	581 (550–600)
		7	185 (180–190)	777 (650–825)	1,157 (800–1,275)
E9	0.1	1	215 (210–220)	890 (700–950)	1,190 (825–1,525)
E10	0.1	1	275 (270–280)	974 (750–1,025)	1,455 (875–1,775)
E12	0.1	1	340 (340–340)	1,164 (825–1,275)	1,746 (925–2,025)

[1] Average distance (meters) to PTS, TTS, and behavioral thresholds are depicted above the minimum and maximum distances which are in parentheses. Values depict the range produced by SEL hearing threshold criteria levels. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, SEL = sound exposure level, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 21 shows the minimum, average, and maximum ranges to onset of auditory effects for mid-frequency cetaceans based on the developed thresholds.

TABLE 21—PEAK PRESSURE-BASED RANGES TO ONSET PTS AND ONSET TTS (IN METERS) FOR MID-FREQUENCY CETACEANS

Range to effects for explosives: mid-frequency cetaceans[1]				
Bin[2]	Source depth (m)	Cluster size	PTS	TTS
E5	0.1	1	158 (150–160)	295 (290–300)
		7	158 (150–160)	295 (290–300)
E9	0.1	1	463 (430–470)	771 (575–850)
E10	0.1	1	558 (490–575)	919 (625–1,025)
E12	0.1	1	679 (550–725)	1,110 (675–1,275)

[1] Average distance (meters) is shown with the minimum and maximum distances due to varying propagation environments in parentheses. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 22 shows the minimum, average, and maximum ranges to onset of auditory and likely behavioral effects that rise to the level of Level B harassment for otariid pinnipeds based on the developed thresholds.

TABLE 22—SEL-BASED RANGES TO ONSET PTS, ONSET TTS, AND BEHAVIORAL DISTURBANCE (IN METERS) FOR OTARIIDS

Range to effects for explosives: otariids[1]					
Bin[2]	Source depth (m)	Cluster size	PTS	TTS	Behavioral
E5	0.1	1	25 (24–25)	110 (110–110)	185 (180–190)
		7	58 (55–60)	265 (260–270)	443 (430–450)
E9	0.1	1	68 (65–70)	320 (310–330)	512 (490–525)
E10	0.1	1	88 (85–90)	400 (390–410)	619 (575–675)
E12	0.1	1	105 (100–110)	490 (470–500)	733 (650–825)

[1] Average distance (meters) to PTS, TTS, and behavioral thresholds are depicted above the minimum and maximum distances which are in parentheses. Values depict the range produced by SEL hearing threshold criteria levels. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, SEL = sound exposure level, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 23 shows the minimum, average, and maximum ranges to onset of auditory effects for otariid pinnipeds based on the developed thresholds.

TABLE 23—PEAK PRESSURE-BASED RANGES TO ONSET PTS AND ONSET TTS (IN METERS) FOR OTARIIDS

Range to effects for explosives: otariids[1]				
Bin[2]	Source depth (m)	Cluster Size	PTS	TTS
E5	0.1	1	128 (120–130)	243 (240–250)
		7	128 (120–130)	243 (240–250)
E9	0.1	1	383 (380–390)	656 (600–700)
E10	0.1	1	478 (470–480)	775 (675–850)
E12	0.1	1	583 (550–600)	896 (750–1,025)

[1] Average distance (meters) is shown with the minimum and maximum distances due to varying propagation environments in parentheses. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, TTS = temporary threshold shift.
[2] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 24 shows the minimum, average, and maximum ranges to onset of auditory and likely behavioral effects that rise to the level of Level B harassment for phocid pinnipeds, excluding elephant seals, based on the developed thresholds.

TABLE 24—SEL-BASED RANGES TO ONSET PTS, ONSET TTS, AND BEHAVIORAL DISTURBANCE (IN METERS) FOR PHOCIDS, EXCLUDING ELEPHANT SEALS

Range to effects for explosives: phocids [1]					
Bin [2]	Source depth (m)	Cluster size	PTS	TTS	Behavioral
E5	0.1	1	150 (150–150)	681 (675–700)	1,009 (975–1,025)
		7	360 (350–370)	1,306 (1,025–1,525)	1,779 (1,275–2,275)
E9	0.1	1	425 (420–430)	1,369 (1,025–1,525)	2,084 (1,525–2,775)
E10	0.1	1	525 (525–525)	1,716 (1,275–2,275)	2,723 (1,525–4,025)
E12	0.1	1	653 (650–675)	1,935 (1,275–2,775)	3,379 (1,775–5,775)

[1] Excluding elephant seals.
[2] Average distance (meters) is shown with the minimum and maximum distances due to varying propagation environments in parentheses. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, TTS = temporary threshold shift.
[3] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 25 shows the minimum, average, and maximum ranges to onset of auditory effects for phocids pinnipeds, excluding elephant seals, based on the developed thresholds.

TABLE 25—PEAK PRESSURE-BASED RANGES TO ONSET PTS AND ONSET TTS (IN METERS) FOR PHOCIDS, EXCLUDING ELEPHANT SEALS

Range to effects for explosives: phocids [1]				
Bin [2]	Source depth (m)	Cluster size	PTS	TTS
E5	0.1	1	537 (525–550)	931 (875–975)
		7	537 (525–550)	931 (875–975)
E9	0.1	1	1,150 (1,025–1,275)	1,845 (1,275–2,525)
E10	0.1	1	1,400 (1,025–1,775)	2,067 (1,275–2,525)
E12	0.1	1	1,713 (1,275–2,025)	2,306 (1,525–2,775)

[1] Excluding elephant seals.
[2] Average distance (meters) is shown with the minimum and maximum distances due to varying propagation environments in parentheses. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, TTS = temporary threshold shift.
[3] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 26 shows the minimum, average, and maximum ranges to onset of auditory and likely behavioral effects that rise to the level of Level B harassment for elephant seals based on the developed thresholds.

TABLE 26—SEL-BASED RANGES TO ONSET PTS, ONSET TTS, AND BEHAVIORAL DISTURBANCE (IN METERS) FOR ELEPHANT SEALS [1]

Range to effects for explosives: phocids (elephant seals) [2]					
Bin [3]	Source depth (m)	Cluster size	PTS	TTS	Behavioral
E5	0.1	1	150 (150–150)	688 (675–700)	1,025 (1,025–1,025)
		7	360 (350–370)	1,525 (1,525–1,525)	2,345 (2,275–2,525)
E9	0.1	1	425 (420–430)	1,775 (1,775–1,775)	2,858 (2,775–3,275)
E10	0.1	1	525 (525–525)	2,150 (2,025–2,525)	3,421 (3,025–4,025)
E12	0.1	1	656 (650–675)	2,609 (2,525–3,025)	4,178 (3,525–5,775)

[1] Elephant seals are separated from other phocids due to their dive behavior, which far exceeds the dive depths of the other phocids analyzed.
[2] Average distance (meters) to PTS, TTS, and behavioral thresholds are depicted above the minimum and maximum distances which are in parentheses. Values depict the range produced by SEL hearing threshold criteria levels. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, SEL = sound exposure level, TTS = temporary threshold shift.
[3] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 27 shows the minimum, average, and maximum ranges to onset of auditory effects for elephant seals, based on the developed thresholds.

TABLE 27—PEAK PRESSURE-BASED RANGES TO ONSET PTS AND ONSET TTS (IN METERS) FOR ELEPHANT SEALS [1]

Range to effects for explosives: phocids (elephant seals) [2]				
Bin [3]	Source depth (m)	Cluster size	PTS	TTS
E5	0.1	1	537 (525–550)	963 (950–975)
		7	537 (525–550)	963 (950–975)
E9	0.1	1	1,275 (1,275–1,275)	2,525 (2,525–2,525)
E10	0.1	1	1,775 (1,775–1,775)	3,046 (3,025–3,275)
E12	0.1	1	2,025 (2,025–2,025)	3,539 (3,525–3,775)

[1] Elephant seals are separated from other phocids due to their dive behavior, which far exceeds the dive depths of the other phocids analyzed.
[2] Average distance (meters) is shown with the minimum and maximum distances due to varying propagation environments in parentheses. No underwater explosions are planned. The model assumes that all explosive energy from detonations at or above (within 10 m) the water surface is released underwater, likely over-estimating ranges to effect. PTS = permanent threshold shift, TTS = temporary threshold shift.
[3] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).

Table 28 shows the minimum, average, and maximum ranges due to varying propagation conditions to non-auditory injury as a function of animal mass and explosive bin (*i.e.,* net explosive weight). Ranges to gastrointestinal tract injury typically exceed ranges to slight lung injury; therefore, the maximum range to effect is not mass-dependent. Animals within these water volumes would be expected to receive minor injuries at the outer ranges, increasing to more substantial injuries, and finally mortality as an animal approaches the detonation point.

TABLE 28—RANGES TO 50 PERCENT NON-AUDITORY INJURY FOR ALL MARINE MAMMAL HEARING GROUPS

Bin [1]	Range to non-auditory injury (meters) [2]
E5	40 (40–40)
E9	121 (90–130)
E10	152 (100–160)
E12	190 (110–200)

[1] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).
[2] Average distance (m) is shown with the minimum and maximum distances due to varying propagation environments in parentheses.
Notes: All ranges to non-auditory injury within this table are driven by gastrointestinal tract injury thresholds regardless of animal mass.

Ranges to mortality, based on animal mass, are shown in Table 29 below.

TABLE 29—RANGES TO 50 PERCENT MORTALITY RISK FOR ALL MARINE MAMMAL HEARING GROUPS AS A FUNCTION OF ANIMAL MASS

Bin [1]	Animal mass intervals (kg) [2]					
	10	250	1,000	5,000	25,000	72,000
E5	13 (12–14)	7 (4–11)	3 (3–4)	2 (1–3)	1 (1–1)	1 (0–1)
E9	35 (30–40)	20 (13–30)	10 (9–13)	7 (6–9)	4 (3–4)	3 (2–3)
E10	43 (40–50)	25 (16–40)	13 (11–16)	9 (7–11)	5 (4–5)	4 (3–4)
E12	55 (50–60)	30 (20–50)	17 (14–20)	11 (9–14)	6 (5–7)	5 (4–6)

[1] Bin (net explosive weight, lb.): E5 (>5–10), E9 (>100–250), E10 (>250–500), E12 (>650–1,000).
[2] Average distance (m) to mortality is depicted above the minimum and maximum distances, which are in parentheses for each animal mass interval.

Marine Mammal Density

A quantitative analysis of impacts on a species or stock requires data on their abundance and distribution that may be affected by anthropogenic activities in the potentially impacted area. The most appropriate metric for this type of analysis is density, which is the number of animals present per unit area. Marine species density estimation requires a significant amount of effort to both collect and analyze data to produce a reasonable estimate. Unlike surveys for terrestrial wildlife, many marine species spend much of their time submerged, and are not easily observed. In order to collect enough sighting data to make reasonable density estimates, multiple observations are required, often in areas that are not easily accessible (*e.g.,* far offshore). Ideally, marine mammal species sighting data would be collected for the specific area and time period (*e.g.,* season) of interest and density estimates derived accordingly. However, in many places, poor weather conditions and high sea states prohibit the completion of comprehensive visual surveys.

For most cetacean species, abundance is estimated using line-transect surveys or mark-recapture studies (*e.g.,* Barlow, 2010; Barlow and Forney, 2007; Calambokidis *et al.,* 2008). The result provides one single density estimate value for each species across broad geographic areas. This is the general approach applied in estimating cetacean abundance in NMFS' Stock Assessment Reports (SARs). Although the single value provides a good average estimate of abundance (total number of individuals) for a specified area, it does not provide information on the species distribution or concentrations within that area, and it does not estimate density for other timeframes or seasons that were not surveyed. More recently, spatial habitat modeling developed by NMFS' Southwest Fisheries Science Center has been used to estimate cetacean densities (Barlow *et al.,* 2009; Becker *et al.,* 2010, 2012a, 2012b, 2012c, 2014, 2016; Ferguson *et al.,* 2006a; Forney *et al.,* 2012, 2015; Redfern *et al.,* 2006). These models estimate cetacean density as a continuous function of habitat variables (*e.g.,* sea surface temperature, seafloor depth, *etc.*) and thus allow predictions of cetacean

densities on finer spatial scales than traditional line-transect or mark recapture analyses and for areas that have not been surveyed. Within the geographic area that was modeled, densities can be predicted wherever these habitat variables can be measured or estimated.

Ideally, density data would be available for all species throughout the study area year-round, in order to best estimate the impacts of Navy activities on marine species. However, in many places ship availability, lack of funding, inclement weather conditions, and high sea states prevent the completion of comprehensive year-round surveys. Even with surveys that are completed, poor conditions may result in lower sighting rates for species that would typically be sighted with greater frequency under favorable conditions. Lower sighting rates preclude having an acceptably low uncertainty in the density estimates. A high level of uncertainty, indicating a low level of confidence in the density estimate, is typical for species that are rare or difficult to sight. In areas where survey data are limited or non-existent, known or inferred associations between marine habitat features and the likely presence of specific species are sometimes used to predict densities in the absence of actual animal sightings. Consequently, there is no single source of density data for every area, species, and season because of the fiscal costs, resources, and effort involved in providing enough survey coverage to sufficiently estimate density.

To characterize marine species density for large oceanic regions, the Navy reviews, critically assesses, and prioritizes existing density estimates from multiple sources, requiring the development of a systematic method for selecting the most appropriate density estimate for each combination of species/stock, area, and season. The selection and compilation of the best available marine species density data resulted in the Navy Marine Species Density Database (NMSDD), which includes seasonal density values for every marine mammal species and stock present within the TMAA. This database is described in the technical report titled *U.S. Navy Marine Species Density Database Phase III for the Gulf of Alaska Temporary Maritime Activities Area* (U.S. Department of the Navy, 2021), hereafter referred to as the Density Technical Report. NMFS vetted all cetacean densities by the Navy prior to use in the Navy's acoustic analysis for the current rulemaking process.

A variety of density data and density models are needed in order to develop a density database that encompasses the entirety of the TMAA (densities beyond the TMAA were not considered because sonar and other transducers and explosives would not be used in the GOA Study Area beyond the TMAA). Because this data is collected using different methods with varying amounts of accuracy and uncertainty, the Navy has developed a hierarchy to ensure the most accurate data is used when available. The Density Technical Report describes these models in detail and provides detailed explanations of the models applied to each species density estimate. The below list describes models in order of preference.

1. Spatial density models are preferred and used when available because they provide an estimate with the least amount of uncertainty by deriving estimates for divided segments of the sampling area. These models (see Becker *et al.,* 2016; Forney *et al.,* 2015) predict spatial variability of animal presence as a function of habitat variables (*e.g.,* sea surface temperature, seafloor depth, *etc.*). This model is developed for areas, species, and, when available, specific timeframes (months or seasons) with sufficient survey data; therefore, this model cannot be used for species with low numbers of sightings.

2. Stratified design-based density estimates use line-transect survey data with the sampling area divided (stratified) into sub-regions, and a density is predicted for each sub-region (see Barlow, 2016; Becker *et al.,* 2016; Bradford *et al.,* 2017; Campbell *et al.,* 2014; Jefferson *et al.,* 2014). While geographically stratified density estimates provide a better indication of a species' distribution within the study area, the uncertainty is typically high because each sub-region estimate is based on a smaller stratified segment of the overall survey effort.

3. Design-based density estimations use line-transect survey data from vessel and aerial surveys designed to cover a specific geographic area (see Carretta *et al.,* 2015). These estimates use the same survey data as stratified design-based estimates, but are not segmented into sub-regions and instead provide one estimate for a large surveyed area.

Relative environmental suitability (RES) models provide estimates for areas of the oceans that have not been surveyed using information on species occurrence and inferred habitat associations and have been used in past density databases, however, these models were not used in the current quantitative analysis.

The Navy describes some of the challenges of interpreting the results of the quantitative analysis summarized above and described in the Density Technical Report: ''It is important to consider that even the best estimate of marine species density is really a model representation of the values of concentration where these animals might occur. Each model is limited to the variables and assumptions considered by the original data source provider. No mathematical model representation of any biological population is perfect, and with regards to marine mammal biodiversity, any single model method will not completely explain the actual distribution and abundance of marine mammal species. It is expected that there would be anomalies in the results that need to be evaluated, with independent information for each case, to support if we might accept or reject a model or portions of the model'' (U.S. Department of the Navy, 2017a).

The Navy's estimate of abundance (based on the density estimates used) in the TMAA may differ from population abundances estimated in NMFS' SARs in some cases for a variety of reasons. Models may predict different population abundances for many reasons. The models may be based on different data sets or different temporal predictions may be made. The SARs are often based on single years of NMFS surveys, whereas the models used by the Navy generally include multiple years of survey data from NMFS, the Navy, and other sources. To present a single, best estimate, the SARs often use a single season survey where they have the best spatial coverage (generally summer). Navy models often use predictions for multiple seasons, where appropriate for the species, even when survey coverage in non-summer seasons is limited, to characterize impacts over multiple seasons as Navy activities may occur outside of the summer months. Predictions may be made for different spatial extents. Many different, but equally valid, habitat and density modeling techniques exist and these can also be the cause of differences in population predictions. Differences in population estimates may be caused by a combination of these factors. Even similar estimates should be interpreted with caution and differences in models fully understood before drawing conclusions.

In particular, the global population structure of humpback whales, with 14 DPSs all associated with multiple feeding areas at which individuals from multiple DPSs convene, is another reason that SAR abundance estimates can differ from other estimates and be somewhat confusing—the same individuals are addressed in multiple

SARs. For some species, the stock assessment for a given species may exceed the Navy's density prediction because those species' home range extends beyond the GOA Study Area or TMAA boundaries. The primary source of density estimates are geographically specific survey data and either peer-reviewed line-transect estimates or habitat-based density models that have been extensively validated to provide the most accurate estimates possible.

These factors and others described in the Density Technical Report should be considered when examining the estimated impact numbers in comparison to current population abundance information for any given species or stock. For a detailed description of the density and assumptions made for each species, see the Density Technical Report.

NMFS coordinated with the Navy in the development of its take estimates and concurs that the Navy's approach for density appropriately utilizes the best available science. Later, in the Preliminary Analysis and Negligible Impact Determination section, we assess how the estimated take numbers compare to stock abundance in order to better understand the potential number of individuals impacted, and the rationale for which abundance estimate is used is included there.

Take Request

The 2020 GOA DSEIS/OEIS considered all training activities proposed to occur in the TMAA, and the 2022 Supplement to the 2020 GOA DSEIS/OEIS considered all training activities proposed to occur in the WMA, together for which they covered all activities proposed for the GOA Study Area. The Navy's rulemaking/LOA application described the activities that are reasonably likely to result in the MMPA-defined take of marine mammals, all of which would occur in the TMAA portion of the GOA Study Area. The Navy determined that the two stressors below could result in the incidental taking of marine mammals. NMFS has reviewed the Navy's data and analysis for the entire Study Area and determined that it is complete and accurate, and agrees that the following stressors have the potential to result in takes by harassment of marine mammals from the Navy's planned activities.

- Acoustics (sonar and other transducers); and
- Explosives (explosive shock wave and sound, assumed to encompass the risk due to fragmentation).

The quantitative analysis process used to estimate potential exposures to marine mammals resulting from acoustic and explosive stressors for the Navy's take request in the rulemaking/LOA application and the 2020 GOA DSEIS/OEIS is detailed in the technical report titled *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing* (U.S. Department of the Navy, 2018). The Navy Acoustic Effects Model estimates acoustic and explosive effects without taking mitigation into account; therefore, the model overestimates predicted impacts on marine mammals within mitigation zones.

To account for mitigation for marine species in the take estimates, the Navy conducts a quantitative assessment of mitigation. The Navy conservatively quantifies the manner in which procedural mitigation is expected to reduce the risk for model-estimated PTS for exposures to sonars and for model-estimated mortality for exposures to explosives, based on species sightability, observation area, visibility, and the ability to exercise positive control over the sound source. Where the analysis indicates mitigation would effectively reduce risk, the model-estimated PTS are considered reduced to TTS and the model-estimated mortalities are considered reduced to injury, though, for training activities in the GOA Study Area, no mortality or non-auditory injury is anticipated, even without consideration of planned mitigation measures. For a complete explanation of the process for assessing the effects of mitigation, see the Navy's rulemaking/LOA application (Section 6: Take Estimates for Marine Mammals, and Section 11: Mitigation Measures) and the technical report titled *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing* (U.S. Department of the Navy, 2018). The extent to which the mitigation areas reduce impacts on the affected species is addressed separately in the Preliminary Analysis and Negligible Impact Determination section.

The Navy assesses the effectiveness of its procedural mitigation measures on a per-scenario basis for four factors: (1) species sightability, (2) a Lookout's ability to observe the range to PTS (for sonar and other transducers) and range to mortality (for explosives, although for this rule the Navy's modeling indicated that no mortality would occur), (3) the portion of time when mitigation could potentially be conducted during periods of reduced daytime visibility (to include inclement weather and high sea-state) and the portion of time when mitigation could potentially be conducted at night, and (4) the ability for sound sources to be positively controlled (*e.g.,* powered down).

During training activities, there is typically at least one, if not numerous, support personnel involved in the activity (*e.g.,* range support personnel aboard a torpedo retrieval boat or support aircraft). In addition to the Lookout posted for the purpose of mitigation, these additional personnel observe and disseminate marine species sighting information amongst the units participating in the activity whenever possible as they conduct their primary mission responsibilities. However, as a conservative approach to assigning mitigation effectiveness factors, the Navy elected to only account for the minimum number of required Lookouts used for each activity; therefore, the mitigation effectiveness factors may underestimate the likelihood that some marine mammals may be detected during activities that are supported by additional personnel who may also be observing the mitigation zone.

For a rulemaking where NMFS and the Navy determine that the planned activities, such as use of explosives, could cause mortality, the Navy would use the equations in the below sections to calculate the reduction in model-estimated mortality impacts due to implementing procedural mitigation.

Equation 1:

$$\textit{Mitigation Effectiveness} = \textit{Species Sightability} \times \textit{Visibility} \times \textit{Observation Area} \times \textit{Positive Control}$$

Species Sightability is the ability to detect marine mammals and is dependent on the animal's presence at the surface and the characteristics of the animal that influence its sightability. The Navy considered applicable data from the best available science to numerically approximate the sightability of marine mammals and determined the standard ''detection probability'' referred to as g(0) is most appropriate. Also, Visibility = 1 − sum of individual visibility reduction factors; Observation Area = portion of impact range that can be continuously observed during an event; and Positive Control = positive control factor of all sound sources involving mitigation. For further details on these mitigation effectiveness factors please refer to the technical report titled *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing* (U.S. Department of the Navy, 2018).

To quantify the number of marine mammals predicted to be sighted by Lookouts in the injury zone during

implementation of procedural mitigation for sonar and other transducers, the species sightability is multiplied by the mitigation effectiveness scores and number of model-estimated PTS impacts, as shown in the equation below:

Equation 2:

Number of Animals Sighted by Lookouts = Mitigation Effectiveness × Model − Estimated Impacts

The marine mammals sighted by Lookouts in the injury zone during implementation of mitigation, as calculated by the equation above, would not be exposed to these higher level impacts. To quantify the number of marine mammals predicted to be sighted by Lookouts in the mortality zone during implementation of procedural mitigation during events using explosives (if any mortality were anticipated to occur), the species sightability is multiplied by the mitigation effectiveness scores and number of model-estimated mortality impacts, as shown in equation 1 above. The marine mammals predicted to be sighted in the mortality zone by Lookouts during implementation of procedural mitigation, as calculated by the above equation 2, are not predicted to be exposed in these ranges. The Navy corrects the category of predicted impact for the number of animals sighted within the mitigation zone, but does not modify the total number of animals predicted to experience impacts from the scenario. For example, the number of animals sighted (*i.e.,* number of animals that will avoid mortality) is first subtracted from the model-predicted mortality impacts, and then added to the model-predicted injurious impacts.

The NAEMO model overestimates the number of marine mammals that would be exposed to sound sources that could cause PTS because the model does not consider horizontal movement of animats, including avoidance of high intensity sound exposures. Therefore, the potential for animal avoidance is considered separately. At close ranges and high sound levels, avoidance of the area immediately around the sound source is one of the assumed behavioral responses for marine mammals. Animal avoidance refers to the movement out of the immediate injury zone for subsequent exposures, not wide-scale area avoidance. Various researchers have demonstrated that cetaceans can perceive the location and movement of a sound source (*e.g.,* vessel, seismic source, etc.) relative to their own location and react with responsive movement away from the source, often at distances of 1 km or more (Au and Perryman, 1982; Jansen *et al.,* 2010; Richardson *et al.,* 1995; Tyack *et al.,* 2011; Watkins, 1986; Würsig *et al.,* 1998). A marine mammal's ability to avoid a sound source and reduce its cumulative sound energy exposure would reduce risk of both PTS and TTS. However, the quantitative analysis conservatively only considers the potential to reduce some instances of PTS by accounting for marine mammals swimming away to avoid repeated high-level sound exposures. All reductions in PTS impacts from likely avoidance behaviors are instead considered TTS impacts.

NMFS coordinated with the Navy in the development of this quantitative method to address the effects of procedural mitigation on acoustic and explosive exposures and takes, and NMFS independently reviewed and concurs with the Navy that it is appropriate to incorporate the quantitative assessment of mitigation into the take estimates based on the best available science. We reiterate, however, that no mortality was modeled for the GOA TMAA activities, and as stated above, the Navy does not propose the use of sonar and other transducers and explosives in the WMA. Therefore, this method was not applied here, as it relates to modeled mortality. This method was applied to potential takes by PTS resulting from sonar and other transducers in the TMAA, but not for the use of explosives. For additional information on the quantitative analysis process and mitigation measures, refer to the technical report titled *Quantifying Acoustic Impacts on Marine Mammals and Sea Turtles: Methods and Analytical Approach for Phase III Training and Testing* (U.S. Department of the Navy, 2018) and Chapter 6 (*Take Estimates for Marine Mammals*) and Chapter 11 (*Mitigation Measures*) of the Navy's rulemaking/LOA application.

As a general matter, NMFS does not prescribe the methods for estimating take for any applicant, but we review and ensure that applicants use the best available science, and methodologies that are logical and technically sound. Applicants may use different methods of calculating take (especially when using models) and still get to a result that is representative of the best available science and that allows for a rigorous and accurate evaluation of the effects on the affected populations. There are multiple pieces of the Navy take estimation methods—propagation models, animat movement models, and behavioral thresholds, for example. NMFS evaluates the acceptability of these pieces as they evolve and are used in different rules and impact analyses. Some of the pieces of the Navy's take estimation process have been used in Navy incidental take rules since 2009 and have undergone multiple public comment processes; all of them have undergone extensive internal Navy review, and all of them have undergone comprehensive review by NMFS, which has sometimes resulted in modifications to methods or models.

The Navy uses rigorous review processes (verification, validation, and accreditation processes; peer and public review) to ensure the data and methodology it uses represent the best available science. For instance, the NAEMO model is the result of a NMFS-led Center for Independent Experts (CIE) review of the components used in earlier models. The acoustic propagation component of the NAEMO model (CASS/GRAB) is accredited by the Oceanographic and Atmospheric Master Library (OAML), and many of the environmental variables used in the NAEMO model come from approved OAML databases and are based on in-situ data collection. The animal density components of the NAEMO model are base products of the NMSDD, which includes animal density components that have been validated and reviewed by a variety of scientists from NMFS Science Centers and academic institutions. Several components of the model, for example the Duke University habitat-based density models, have been published in peer reviewed literature. Others like the Atlantic Marine Assessment Program for Protected Species, which was conducted by NMFS Science Centers, have undergone quality assurance and quality control (QA/QC) processes. Finally, the NAEMO model simulation components underwent QA/QC review and validation for model parts such as the scenario builder, acoustic builder, scenario simulator, *etc.,* conducted by qualified statisticians and modelers to ensure accuracy. Other models and methodologies have gone through similar review processes.

In summary, we believe the Navy's methods, including the underlying NAEMO modeling and the method for incorporating mitigation and avoidance, are the most appropriate methods for predicting non-auditory injury, PTS, TTS, and behavioral disturbance. But even with the consideration of mitigation and avoidance, given some of the more conservative components of the methodology (*e.g.,* the thresholds do not consider ear recovery between pulses), we would describe the application of these methods as identifying the maximum number of

instances in which marine mammals would be reasonably expected to be taken through non-auditory injury, PTS, TTS, or behavioral disturbance.

Summary of Requested Take From Training Activities

Based on the methods discussed in the previous sections and the Navy's model and quantitative assessment of mitigation, the Navy provided its take estimate and request for authorization of takes incidental to the use of acoustic and explosive sources for training activities both annually (based on the maximum number of activities that could occur per 12-month period) and over the 7-year period covered by the Navy's rulemaking/LOA application. The following species/stocks present in the TMAA were modeled by the Navy and estimated to have 0 takes of any type from any activity source: Western North Pacific stock of humpback whale; Eastern North Pacific and Western North Pacific stocks of gray whales; Eastern North Pacific Alaska Resident and AT1 Transient stocks of killer whales; Gulf of Alaska and Southeast Alaska stocks of harbor porpoises; U.S. stock of California sea lion; Eastern U.S. and Western U.S. stock of Steller sea lion; Cook Inlet/Shelikof Strait, North Kodiak, Prince William Sound, and South Kodiak stocks of harbor seals, and Alaska stock of Ribbon seals.

The Phase II rule (82 FR 19530; April 26, 2017), valid from April 2017 to April 2022, authorized Level B harassment take of the Eastern North Pacific Alaska Resident stock of killer whales, Gulf of Alaska and Southeast Alaska stocks of harbor porpoise, California sea lion, Eastern U.S. and Western U.S. stock of Steller sea lion, and South Kodiak and Prince William Sound stocks of harbor seal. Takes of these stocks in Phase II were all expected to occur as a result of exposure to sonar activity, rather than explosive use. Inclusion of new density/distribution information and updated BRFs and corresponding cut-offs resulted in 0 estimated takes for these species and stocks in this rulemaking for Phase III.

NMFS has reviewed the Navy's data, methodology, and analysis for the current phase of rulemaking (Phase III) and determined that it is complete and accurate. However, NMFS has conservatively proposed to include incidental take of the Western North Pacific stock of humpback whale and Eastern North Pacific stock of gray whale, for the following reasons. For the Western North Pacific stock of humpback whale, in calculating takes by Level B harassment from sonar in Phase III, the application of the Phase III BRFs with corresponding cut-offs (20 km for mysticetes), in addition to the stock guild breakout which assigns 0.05 percent of the take of humpback whales to the Western North Pacific stock, generated a near-zero result, which the Navy rounded to zero in its rulemaking/LOA application. However, NMFS authorized take of one Western North Pacific humpback whale in the Phase II LOA, and, given that they do occur in the area, NMFS is conservatively proposing to authorize take by Level B harassment of one group (3 animals) annually in this Phase III rulemaking. The annual take estimate of 3 animals reflects the average group size of on and off-effort survey sightings of humpback whales reported in Rone *et al.* (2017). For the Eastern North Pacific stock of gray whales, application of the Phase III BRFs with corresponding cut-offs (20 km for mysticetes) resulted in true zero takes by Level B harassment for Phase III. However, Palacios *et al.* (2021) reported locations of three tagged gray whales within the TMAA as well as tracks of two additional gray whales that crossed the TMAA, and as noted previously, the TMAA overlaps with the gray whale migratory corridor BIA (November–January, southbound; March–May, northbound). As such, NMFS is conservatively proposing to authorize take by Level B harassment of one group (4 animals) of Eastern North Pacific gray whales annually in this Phase III rulemaking. The annual take estimate of 4 animals reflects the average group sizes of on and off-effort survey sightings of gray whales (excluding an outlier of an estimated 25 gray whales in one group) reported in Rone *et al.* (2017).

For all other species and stocks, NMFS agrees that the estimates for incidental takes by harassment from all sources requested for authorization are the maximum number of instances in which marine mammals are reasonably expected to be taken. NMFS also agrees that no mortality or serious injury is anticipated to occur, and no lethal take is proposed to be authorized.

Estimated Harassment Take From Training Activities

For the Navy's training activities, Table 30 summarizes the Navy's take estimate and request and the maximum annual and 7-year total amount and type of Level A harassment and Level B harassment for the 7-year period that NMFS anticipates is reasonably likely to occur (including the incidental take of Western North Pacific stock of humpback whale and Eastern North Pacific stock of gray whale, discussed above) by species and stock. Note that take by Level B harassment includes both behavioral disruption and TTS. Tables 6–10 through 6–24 (sonar and other transducers) and 6–41 through 6–49 (explosives) in Section 6 of the Navy's rulemaking/LOA application provide the comparative amounts of TTS and behavioral disruption for each species and stock annually, noting that if a modeled marine mammal was ''taken'' through exposure to both TTS and behavioral disruption in the model, it was recorded as a TTS.

TABLE 30—ANNUAL AND 7-YEAR TOTAL SPECIES/STOCK-SPECIFIC TAKE ESTIMATES PROPOSED FOR AUTHORIZATION FROM ACOUSTIC AND EXPLOSIVE SOUND SOURCE EFFECTS FOR ALL TRAINING ACTIVITIES IN THE TMAA

Species	Stock	Annual		7-year total	
		Level B	Level A	Level B	Level A
Order Cetacea Suborder Mysticeti (baleen whales)					
Family Balaenidae (right whales):					
North Pacific right whale *	Eastern North Pacific	3	0	21	0
Family Balaenopteridae (rorquals):					
Humpback whale	California, Oregon, & Washington *	10	0	70	0
	Central North Pacific *	79	0	553	0
	Western North Pacific *	[a] 3	0	[a] 21	0
Blue whale *	Central North Pacific	3	0	21	0
	Eastern North Pacific	36	0	252	0
Fin whale *	Northeast Pacific	1,242	2	8,694	14

TABLE 30—ANNUAL AND 7-YEAR TOTAL SPECIES/STOCK-SPECIFIC TAKE ESTIMATES PROPOSED FOR AUTHORIZATION FROM ACOUSTIC AND EXPLOSIVE SOUND SOURCE EFFECTS FOR ALL TRAINING ACTIVITIES IN THE TMAA—Continued

Species	Stock	Annual		7-year total	
		Level B	Level A	Level B	Level A
Sei whale *	Eastern North Pacific	37	0	259	0
Minke whale	Alaska	50	0	350	0
Family Eschrichtiidae (gray whale):					
Gray whale	Eastern North Pacific	[a] 4	0	[a] 28	0
Suborder Odontoceti (toothed whales)					
Family Delphinidae (dolphins):					
Killer whale	Eastern North Pacific, Offshore	81	0	567	0
	Gulf of Alaska, Aleutian Island, & Bering Sea Transient.	143	0	1,001	0
Pacific white-sided dolphin	North Pacific	1,574	0	11,018	0
Family Phocoenidae (porpoises):					
Dall's porpoise	Alaska	9,287	64	65,009	448
Family Physeteridae (sperm whale):					
Sperm whale *	North Pacific	112	0	784	0
Family Ziphiidae (beaked whales):					
Baird's beaked whale	Alaska	106	0	742	0
Cuvier's beaked whale	Alaska	433	0	3,031	0
Stejneger's beaked whale	Alaska	482	0	3,374	0
Order Carnivora Suborder Pinnipedia					
Family Otarridae:					
Northern fur seal	Eastern Pacific	3,003	0	21,021	0
	California	61	0	427	0
Family Phocidae (true seals):					
Northern elephant seal	California	2,547	8	17,829	56

* ESA-listed species and stocks within the GOA Study Area.

[a] The Navy's Acoustic Effects Model estimated zero takes for each of these stocks. However, NMFS conservatively proposes to authorize take by Level B harassment of one group of Western North Pacific humpback whale and one group of Eastern North Pacific gray whale. The annual take estimates reflect the average group sizes of on and off-effort survey sightings of humpback whale and gray whale (excluding an outlier of an estimated 25 gray whales in one group) reported in Rone *et al.* (2017).

Proposed Mitigation Measures

Under section 101(a)(5)(A) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and other means of effecting the least practicable adverse impact on the species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stocks for subsistence uses (''least practicable adverse impact''). NMFS does not have a regulatory definition for least practicable adverse impact. The 2004 NDAA amended the MMPA as it relates to military readiness activities and the incidental take authorization process such that a determination of ''least practicable adverse impact'' shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

In *Conservation Council for Hawaii* v. *National Marine Fisheries Service,* 97 F. Supp. 3d 1210, 1229 (D. Haw. 2015), the Court stated that NMFS ''appear[s] to think [it] satisf[ies] the statutory 'least practicable adverse impact' requirement with a 'negligible impact' finding.'' In 2016, expressing similar concerns in a challenge to a U.S. Navy Surveillance Towed Array Sensor System Low Frequency Active Sonar (SURTASS LFA) incidental take rule (77 FR 50290), the Ninth Circuit Court of Appeals in *Natural Resources Defense Council (NRDC)* v. *Pritzker,* 828 F.3d 1125, 1134 (9th Cir. 2016), stated ''[c]ompliance with the 'negligible impact' requirement does not mean there [is] compliance with the 'least practicable adverse impact' standard.'' As the Ninth Circuit noted in its opinion, however, the Court was interpreting the statute without the benefit of NMFS' formal interpretation. We state here explicitly that NMFS is in full agreement that the ''negligible impact'' and ''least practicable adverse impact'' requirements are distinct, even though both statutory standards refer to species and stocks. With that in mind, we provide further explanation of our interpretation of least practicable adverse impact, and explain what distinguishes it from the negligible impact standard. This discussion is consistent with previous rules we have published, such as the Navy's HSTT rule (83 FR 66846; December 27, 2018), AFTT rule (84 FR 70712; December 23, 2019), Mariana Islands Training and Testing (MITT) rule (85 FR 46302; July 31, 2020), and the Northwest Training and Testing (NWTT) rule (85 FR 72312; November 12, 2020).

Before NMFS can issue incidental take regulations under section 101(a)(5)(A) of the MMPA, it must make a finding that the total taking will have a ''negligible impact'' on the affected ''species or stocks'' of marine mammals. NMFS' and U.S. Fish and Wildlife Service's implementing regulations for section 101(a)(5) both define ''negligible impact'' 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 (50 CFR 216.103 and 50 CFR 18.27(c)). Recruitment (*i.e.,* reproduction) and survival rates are used to determine

population growth rates[2] and, therefore are considered in evaluating population level impacts.

As stated in the preamble to the proposed rule for the MMPA incidental take implementing regulations (53 FR 8473; March 15, 1988), not every population-level impact violates the negligible impact requirement. The negligible impact standard does not require a finding that the anticipated take will have ''no effect'' on population numbers or growth rates: the statutory standard does not require that the same recovery rate be maintained, rather it requires that no significant effect on annual rates of recruitment or survival occurs. The key factor is the significance of the level of impact on rates of recruitment or survival. (54 FR 40338, 40341–42; September 29, 1989).

While some level of impact on population numbers or growth rates of a species or stock may occur and still satisfy the negligible impact requirement—even without consideration of mitigation—the least practicable adverse impact provision separately requires NMFS to prescribe means of effecting the least practicable adverse impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance (50 CFR 216.102(b)), which are typically identified as the subject of mitigation measures.[3]

The negligible impact and least practicable adverse impact standards in the MMPA both call for evaluation at the level of the ''species or stock.'' The MMPA does not define the term ''species.'' However, Merriam-Webster Dictionary defines ''species'' to include ''related organisms or *populations* potentially capable of interbreeding.'' See *www.merriam-webster.com/dictionary/species* (emphasis added). Section 3(11) of the MMPA defines ''stock'' as a group of marine mammals of the same species or smaller taxa in a common spatial arrangement that interbreed when mature. The definition of ''population'' is a group of interbreeding organisms that represents the level of organization at which speciation begins. *www.merriam-webster.com/dictionary/population.* The definition of ''population'' is strikingly similar to the MMPA's definition of ''stock,'' with both involving groups of individuals that belong to the same species and are located in a manner that allows for interbreeding. In fact, under MMPA section 3(11), the statutory term ''stock'' in the MMPA is interchangeable with the statutory term ''population stock.'' Both the negligible impact standard and the least practicable adverse impact standard call for evaluation at the level of the species or stock, and the terms ''species'' and ''stock'' both relate to populations; therefore, it is appropriate to view both the negligible impact standard and the least practicable adverse impact standard as having a population-level focus.

This interpretation is consistent with Congress' statutory findings for enacting the MMPA, nearly all of which are most applicable at the species or stock (*i.e.,* population) level. *See* MMPA section 2 (finding that it is species and population stocks that are or may be in danger of extinction or depletion; that it is species and population stocks that should not diminish beyond being significant functioning elements of their ecosystems; and that it is species and population stocks that should not be permitted to diminish below their optimum sustainable population level). Annual rates of recruitment (*i.e.,* reproduction) and survival are the key biological metrics used in the evaluation of population-level impacts, and accordingly these same metrics are also used in the evaluation of population level impacts for the least practicable adverse impact standard.

Recognizing this common focus of the least practicable adverse impact and negligible impact provisions on the ''species or stock'' does not mean we conflate the two standards; despite some common statutory language, we recognize the two provisions are different and have different functions. First, a negligible impact finding is required before NMFS can issue an incidental take authorization. Although it is acceptable to use the mitigation measures to reach a negligible impact finding (*see* 50 CFR 216.104(c)), no amount of mitigation can enable NMFS to issue an incidental take authorization for an activity that still would not meet the negligible impact standard. Moreover, even where NMFS can reach a negligible impact finding—which we emphasize does allow for the possibility of some ''negligible'' population-level impact—the agency must still prescribe measures that will affect the least practicable amount of adverse impact upon the affected species or stock.

Section 101(a)(5)(A)(i)(II) requires NMFS to issue, in conjunction with its authorization, binding—and enforceable—restrictions (in the form of regulations) setting forth how the activity must be conducted, thus ensuring the activity has the ''least practicable adverse impact'' on the affected species or stocks. In situations where mitigation is specifically needed to reach a negligible impact determination, section 101(a)(5)(A)(i)(II) also provides a mechanism for ensuring compliance with the ''negligible impact'' requirement. Finally, the least practicable adverse impact standard also requires consideration of measures for marine mammal habitat, with particular attention to rookeries, mating grounds, and other areas of similar significance, and for subsistence impacts, whereas the negligible impact standard is concerned solely with conclusions about the impact of an activity on annual rates of recruitment and survival.[4] In *NRDC* v. *Pritzker,* the Court stated, ''[t]he statute is properly read to mean that even if population levels are not threatened *significantly,* still the agency must adopt mitigation measures aimed at protecting *marine mammals* to the greatest extent practicable in light of military readiness needs.'' *Pritzker* at 1134 (emphases added). This statement is consistent with our understanding stated above that even when the effects of an action satisfy the negligible impact standard (*i.e.,* in the Court's words, ''population levels are not threatened significantly''), still the agency must prescribe mitigation under the least practicable adverse impact standard. However, as the statute indicates, the focus of both standards is ultimately the impact on the affected ''species or stock,'' and not solely focused on or directed at the impact on individual marine mammals.

We have carefully reviewed and considered the Ninth Circuit's opinion in *NRDC* v. *Pritzker* in its entirety. While the Court's reference to ''marine mammals'' rather than ''marine mammal species or stocks'' in the italicized language above might be construed as holding that the least practicable adverse impact standard applies at the individual ''marine mammal'' level, *i.e.,* that NMFS must require mitigation to minimize impacts to each individual marine mammal unless impracticable, we believe such an interpretation reflects an incomplete appreciation of the Court's holding. In our view, the opinion as a whole turned on the Court's determination that NMFS had not given separate and independent

[2] A growth rate can be positive, negative, or flat.

[3] Separately, NMFS also must prescribe means of effecting the least practicable adverse impact on the availability of the species or stocks for subsistence uses, when applicable. See the Subsistence Harvest of Marine Mammals section for separate discussion of the effects of the specified activities on Alaska Native subsistence use.

[4] Outside of the military readiness context, mitigation may also be appropriate to ensure compliance with the ''small numbers'' language in MMPA sections 101(a)(5)(A) and (D).

meaning to the least practicable adverse impact standard apart from the negligible impact standard, and further, that the Court's use of the term ''marine mammals'' was not addressing the question of whether the standard applies to individual animals as opposed to the species or stock as a whole. We recognize that, while consideration of mitigation can play a role in a negligible impact determination, consideration of mitigation measures extends beyond that analysis. In evaluating what mitigation measures are appropriate, NMFS considers the potential impacts of the specified activities, the availability of measures to minimize those potential impacts, and the practicability of implementing those measures, as we describe below.

Implementation of Least Practicable Adverse Impact Standard

Given the *NRDC* v. *Pritzker* decision, we discuss here how we determine whether a measure or set of measures meets the ''least practicable adverse impact'' standard. Our separate analysis of whether the take anticipated to result from Navy's activities meets the ''negligible impact'' standard appears in the Preliminary Analysis and Negligible Impact Determination section below.

Our evaluation of potential mitigation measures includes consideration of two primary factors:

(1) The manner in which, and the degree to which, implementation of the potential measure(s) is expected to reduce adverse impacts to marine mammal species or stocks, their habitat, or their availability for subsistence uses (where relevant). This analysis considers such things as the nature of the potential adverse impact (such as likelihood, scope, and range), the likelihood that the measure will be effective if implemented, and the likelihood of successful implementation; and

(2) The practicability of the measure(s) for applicant implementation. Practicability of implementation may consider such things as cost, impact on activities, and, in the case of a military readiness activity, specifically considers personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

While the language of the least practicable adverse impact standard calls for minimizing impacts to affected species or stocks, we recognize that the reduction of impacts to those species or stocks accrues through the application of mitigation measures that limit impacts to individual animals. Accordingly, NMFS' analysis focuses on measures that are designed to avoid or minimize impacts on individual marine mammals that are likely to increase the probability or severity of population-level effects.

While direct evidence of impacts to species or stocks from a specified activity is rarely available, and additional study is still needed to understand how specific disturbance events affect the fitness of individuals of certain species, there have been improvements in understanding the process by which disturbance effects are translated to the population. With recent scientific advancements (both marine mammal energetic research and the development of energetic frameworks), the relative likelihood or degree of impacts on species or stocks may often be inferred given a detailed understanding of the activity, the environment, and the affected species or stocks—and the best available science has been used here. This same information is used in the development of mitigation measures and helps us understand how mitigation measures contribute to lessening effects (or the risk thereof) to species or stocks. We also acknowledge that there is always the potential that new information, or a new recommendation, could become available in the future and necessitate reevaluation of mitigation measures (which may be addressed through adaptive management) to see if further reductions of population impacts are possible and practicable.

In the evaluation of specific measures, the details of the specified activity will necessarily inform each of the two primary factors discussed above (expected reduction of impacts and practicability), and are carefully considered to determine the types of mitigation that are appropriate under the least practicable adverse impact standard. Analysis of how a potential mitigation measure may reduce adverse impacts on a marine mammal stock or species, consideration of personnel safety, practicality of implementation, and consideration of the impact on effectiveness of military readiness activities are not issues that can be meaningfully evaluated through a yes/no lens. The manner in which, and the degree to which, implementation of a measure is expected to reduce impacts, as well as its practicability in terms of these considerations, can vary widely. For example, a time/area restriction could be of very high value for decreasing population-level impacts (*e.g.,* avoiding disturbance of feeding females in an area of established biological importance) or it could be of lower value (*e.g.,* decreased disturbance in an area of high productivity but of less biological importance). Regarding practicability, a measure might involve restrictions in an area or time that impede the Navy's ability to certify a strike group (higher impact on mission effectiveness), or it could mean delaying a small in-port training event by 30 minutes to avoid exposure of a marine mammal to injurious levels of sound (lower impact). A responsible evaluation of ''least practicable adverse impact'' will consider the factors along these realistic scales. Accordingly, the greater the likelihood that a measure will contribute to reducing the probability or severity of adverse impacts to the species or stock or its habitat, the greater the weight that measure is given when considered in combination with practicability to determine the appropriateness of the mitigation measure, and vice versa. We discuss consideration of these factors in greater detail below.

1. *Reduction of adverse impacts to marine mammal species or stocks and their habitat.* The emphasis given to a measure's ability to reduce the impacts on a species or stock considers the degree, likelihood, and context of the anticipated reduction of impacts to individuals (and how many individuals) as well as the status of the species or stock.

The ultimate impact on any individual from a disturbance event (which informs the likelihood of adverse species- or stock-level effects) is dependent on the circumstances and associated contextual factors, such as duration of exposure to stressors. Though any proposed mitigation needs to be evaluated in the context of the specific activity and the species or stocks affected, measures with the following types of effects have greater value in reducing the likelihood or severity of adverse species- or stock-level impacts: avoiding or minimizing injury or mortality; limiting interruption of known feeding, breeding, mother/young, or resting behaviors; minimizing the abandonment of important habitat (temporally and spatially); minimizing the number of individuals subjected to these types of disruptions; and limiting degradation of habitat. Mitigating these types of effects is intended to reduce the likelihood that the activity will result in energetic or other types of impacts that are more likely to result in reduced reproductive success or survivorship. It is also important to consider the degree of impacts that are expected in the absence of mitigation in order to assess the added value of any potential

measures. Finally, because the least practicable adverse impact standard gives NMFS discretion to weigh a variety of factors when determining appropriate mitigation measures and because the focus of the standard is on reducing impacts at the species or stock level, the least practicable adverse impact standard does not compel mitigation for every kind of take, or every individual taken, if that mitigation is unlikely to meaningfully contribute to the reduction of adverse impacts on the species or stock and its habitat, even when practicable for implementation by the applicant.

The status of the species or stock is also relevant in evaluating the appropriateness of potential mitigation measures in the context of least practicable adverse impact. The following are examples of factors that may (either alone, or in combination) result in greater emphasis on the importance of a mitigation measure in reducing impacts on a species or stock: the stock is known to be decreasing or status is unknown, but believed to be declining; the known annual mortality (from any source) is approaching or exceeding the potential biological removal (PBR) level (as defined in MMPA section 3(20)); the affected species or stock is a small, resident population; or the stock is involved in a UME or has other known vulnerabilities, such as recovering from an oil spill.

Habitat mitigation, particularly as it relates to rookeries, mating grounds, and areas of similar significance, is also relevant to achieving the standard and can include measures such as reducing impacts of the activity on known prey utilized in the activity area or reducing impacts on physical habitat. As with species- or stock-related mitigation, the emphasis given to a measure's ability to reduce impacts on a species or stock's habitat considers the degree, likelihood, and context of the anticipated reduction of impacts to habitat. Because habitat value is informed by marine mammal presence and use, in some cases there may be overlap in measures for the species or stock and for use of habitat.

We consider available information indicating the likelihood of any measure to accomplish its objective. If evidence shows that a measure has not typically been effective nor successful, then either that measure should be modified or the potential value of the measure to reduce effects should be lowered.

2. *Practicability.* Factors considered may include cost, impact on activities, and, in the case of a military readiness activity, will include personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity (see MMPA section 101(a)(5)(A)(ii)).

Assessment of Mitigation Measures for the GOA Study Area

NMFS has fully reviewed the specified activities and the mitigation measures included in the Navy's rulemaking/LOA application, the 2020 GOA DSEIS/OEIS, and the 2022 Supplement to the 2020 GOA DSEIS/OEIS to determine if the mitigation measures would result in the least practicable adverse impact on marine mammals and their habitat. NMFS worked with the Navy in the development of the Navy's initially proposed measures, which are informed by years of implementation and monitoring. A complete discussion of the Navy's evaluation process used to develop, assess, and select mitigation measures, which was informed by input from NMFS, can be found in Chapter 5 (*Mitigation*) of the 2020 GOA DSEIS/OEIS. The process described in Chapter 5 (*Mitigation*) of the 2020 GOA DSEIS/OEIS robustly supported NMFS' independent evaluation of whether the mitigation measures would meet the least practicable adverse impact standard, including the addition of the Continental Shelf and Slope Mitigation Area presented in the February 2022 second updated application and analyzed in the 2022 Supplement to the 2020 GOA DSEIS/OEIS. The Navy would be required to implement the mitigation measures identified in this rule for the full 7 years to avoid or reduce potential impacts from acoustic and explosive stressors.

As a general matter, where an applicant proposes measures that are likely to reduce impacts to marine mammals, the fact that they are included in the application indicates that the measures are practicable, and it is not necessary for NMFS to conduct a detailed analysis of the measures the applicant proposed (rather, they are simply included). However, it is still necessary for NMFS to consider whether there are additional practicable measures that would meaningfully reduce the probability or severity of impacts that could affect reproductive success or survivorship.

Overall the Navy has agreed to procedural mitigation measures that would reduce the probability and/or severity of impacts expected to result from acute exposure to acoustic sources or explosives, ship strike, and impacts to marine mammal habitat. Specifically, the Navy would use a combination of delayed starts, powerdowns, and shutdowns to avoid mortality or serious injury, minimize the likelihood or severity of PTS or other injury, and reduce instances of TTS or more severe behavioral disruption caused by acoustic sources or explosives. The Navy would also implement multiple time/area restrictions that would reduce take of marine mammals in areas or at times where they are known to engage in important behaviors, such as foraging, where the disruption of those behaviors would have a higher probability of resulting in impacts on reproduction or survival of individuals that could lead to population-level impacts.

The Navy assessed the practicability of the proposed measures in the context of personnel safety, practicality of implementation, and their impacts on the Navy's ability to meet their Title 10 requirements and found that the measures are supportable. As described in more detail below, NMFS has independently evaluated the measures the Navy proposed in the manner described earlier in this section (*i.e.,* in consideration of their ability to reduce adverse impacts on marine mammal species and their habitat and their practicability for implementation). We have determined that the measures would significantly and adequately reduce impacts on the affected marine mammal species and stocks and their habitat and, further, be practicable for Navy implementation. Therefore, the mitigation measures assure that the Navy's activities would have the least practicable adverse impact on the species or stocks and their habitat.

The Navy also evaluated numerous measures in the 2020 GOA DSEIS/OEIS that were not included in the Navy's rulemaking/LOA application, and NMFS independently reviewed and preliminarily concurs with the Navy's analysis that their inclusion was not appropriate under the least practicable adverse impact standard based on our assessment. The Navy considered these additional potential mitigation measures in two groups. First, Chapter 5 (*Mitigation)* of the 2020 GOA DSEIS/OEIS, in the *Measures Considered but Eliminated* section, includes an analysis of an array of different types of mitigation that have been recommended over the years by non-governmental organizations or the public, through scoping or public comment on environmental compliance documents. As described in Chapter 5 (*Mitigation*) of the 2020 GOA DSEIS/OEIS, the Navy considered reducing its overall amount of training, reducing explosive use, modifying its sound sources, completely replacing live training with computer simulation, and including time of day

restrictions. Many of these mitigation measures could potentially reduce the number of marine mammals taken, via direct reduction of the activities or amount of sound energy put in the water. However, as described in Chapter 5 (*Mitigation*) of the 2020 GOA DSEIS/OEIS, the Navy needs to train in the conditions in which it fights—and these types of modifications fundamentally change the activity in a manner that would not support the purpose and need for the training (*i.e.,* are entirely impracticable) and therefore are not considered further. NMFS finds the Navy's explanation for why adoption of these recommendations would unacceptably undermine the purpose of the training persuasive. After independent review, NMFS finds the Navy's judgment on the impacts of these potential mitigation measures to personnel safety, practicality of implementation, and the effectiveness of training persuasive, and for these reasons, NMFS finds that these measures do not meet the least practicable adverse impact standard because they are not practicable for implementation in either the TMAA or the GOA Study Area overall.

Second, in Chapter 5 (*Mitigation*) of the 2020 GOA DSEIS/OEIS, the Navy evaluated additional potential procedural mitigation measures, including increased mitigation zones, ramp-up measures, additional passive acoustic and visual monitoring, and decreased vessel speeds. Some of these measures have the potential to incrementally reduce take to some degree in certain circumstances, though the degree to which this would occur is typically low or uncertain. However, as described in the Navy's analysis, the measures would have significant direct negative effects on mission effectiveness and are considered impracticable (see Chapter 5, *Mitigation,* of 2020 GOA DSEIS/OEIS). NMFS independently reviewed the Navy's evaluation and concurs with this assessment, which supports NMFS' preliminary findings that the impracticability of this additional mitigation would greatly outweigh any potential minor reduction in marine mammal impacts that might result; therefore, these additional mitigation measures are not warranted.

Last, Chapter 5 (*Mitigation*) of the 2020 GOA DSEIS/OEIS, also describes a comprehensive analysis of potential geographic mitigation that includes consideration of both a biological assessment of how the potential time/area limitation would benefit the species and its habitat (*e.g.,* is a key area of biological importance or would result in avoidance or reduction of impacts) in the context of the stressors of concern in the specific area and an operational assessment of the practicability of implementation (*e.g.,* including an assessment of the specific importance of an area for training, considering proximity to training ranges and emergency landing fields and other issues). In its second updated application and the 2022 Supplement to the 2020 GOA DSEIS/OEIS, the Navy included an expansion to the mitigation area previously referred to as the Portlock Bank Mitigation Area, now referred to as the Continental Shelf and Slope Mitigation Area. The Navy has found that geographic mitigation beyond what is included in the 2020 GOA DSEIS/OEIS and 2022 Supplement to the 2020 GOA DSEIS/OEIS is not warranted because the anticipated reduction of adverse impacts on marine mammal species and their habitat is not sufficient to offset the impracticability of implementation. In some cases potential benefits to marine mammals were non-existent, while in others the consequences on mission effectiveness were too great.

NMFS has reviewed the Navy's analysis in Chapter 5 (*Mitigation*) of the 2020 GOA DSEIS/OEIS and Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the 2022 Supplement to the 2020 GOA DSEIS/OEIS, which consider the same factors that NMFS considers to satisfy the least practicable adverse impact standard, and concurs with the analysis and conclusions. Therefore, NMFS is not proposing to include any of the measures that the Navy ruled out in the 2020 GOA DSEIS/OEIS. Below are the mitigation measures that NMFS has preliminarily determined would ensure the least practicable adverse impact on all affected species and their habitat, including the specific considerations for military readiness activities. The following sections describe the mitigation measures that would be implemented in association with the training activities analyzed in this document. The mitigation measures are organized into two categories: procedural mitigation and mitigation areas.

Procedural Mitigation

Procedural mitigation is mitigation that the Navy would implement whenever and wherever an applicable training activity takes place within the GOA Study Area. The Navy customizes procedural mitigation for each applicable activity category or stressor. Procedural mitigation generally involves: (1) the use of one or more trained Lookouts to diligently observe for specific biological resources (including marine mammals) within a mitigation zone, (2) requirements for Lookouts to immediately communicate sightings of specific biological resources to the appropriate watch station for information dissemination, and (3) requirements for the watch station to implement mitigation (*e.g.,* halt an activity) until certain recommencement conditions have been met. The first procedural mitigation (Table 31) is designed to aid Lookouts and other applicable Navy personnel with their observation, environmental compliance, and reporting responsibilities. The remainder of the procedural mitigation measures (Table 32 through Table 39) are organized by stressor type and activity category and include acoustic stressors (*i.e.,* active sonar, weapons firing noise), explosive stressors (*i.e.,* large-caliber projectiles, bombs), and physical disturbance and strike stressors (*i.e.,* vessel movement, towed in-water devices, small-, medium-, and large-caliber non-explosive practice munitions, non-explosive bombs).

TABLE 31—PROCEDURAL MITIGATION FOR ENVIRONMENTAL AWARENESS AND EDUCATION

Procedural mitigation description
Stressor or Activity:
• All training activities, as applicable.
Mitigation Requirements:
• Appropriate Navy personnel (including civilian personnel) involved in mitigation and training activity reporting under the specified activities will complete one or more modules of the U.S. Navy Afloat Environmental Compliance Training Series, as identified in their career path training plan. Modules include:

TABLE 31—PROCEDURAL MITIGATION FOR ENVIRONMENTAL AWARENESS AND EDUCATION—Continued

Procedural mitigation description
—Introduction to the U.S. Navy Afloat Environmental Compliance Training Series. The introductory module provides information on environmental laws (*e.g.,* Endangered Species Act, Marine Mammal Protection Act) and the corresponding responsibilities that are relevant to Navy training activities. The material explains why environmental compliance is important in supporting the Navy's commitment to environmental stewardship. —Marine Species Awareness Training. All bridge watch personnel, Commanding Officers, Executive Officers, maritime patrol aircraft aircrews, anti-submarine warfare aircrews, Lookouts, and equivalent civilian personnel must successfully complete the Marine Species Awareness Training prior to standing watch or serving as a Lookout. The Marine Species Awareness Training provides information on sighting cues, visual observation tools and techniques, and sighting notification procedures. Navy biologists developed Marine Species Awareness Training to improve the effectiveness of visual observations for biological resources, focusing on marine mammals and sea turtles, and including floating vegetation, jellyfish aggregations, and flocks of seabirds. —U.S. Navy Protective Measures Assessment Protocol. This module provides the necessary instruction for accessing mitigation requirements during the event planning phase using the Protective Measures Assessment Protocol software tool. —U.S. Navy Sonar Positional Reporting System and Marine Mammal Incident Reporting. This module provides instruction on the procedures and activity reporting requirements for the Sonar Positional Reporting System and marine mammal incident reporting.

Procedural Mitigation for Acoustic Stressors

Mitigation measures for acoustic stressors are provided in Table 32 and Table 33.

TABLE 32—PROCEDURAL MITIGATION FOR ACTIVE SONAR

Procedural mitigation description
Stressor or Activity: • Mid-frequency active sonar and high-frequency active sonar: —For vessel-based active sonar activities, mitigation applies only to sources that are positively controlled and deployed from manned surface vessels (*e.g.,* sonar sources towed from manned surface platforms). —For aircraft-based active sonar activities, mitigation applies only to sources that are positively controlled and deployed from manned aircraft that do not operate at high altitudes (*e.g.,* rotary-wing aircraft). Mitigation does not apply to active sonar sources deployed from unmanned aircraft or aircraft operating at high altitudes (*e.g.,* maritime patrol aircraft). *Number of Lookouts and Observation Platform:* • Hull-mounted sources: —1 Lookout: Platforms with space or manning restrictions while underway (at the forward part of a small boat or ship) and platforms using active sonar while moored or at anchor. —2 Lookouts: Platforms without space or manning restrictions while underway (at the forward part of the ship). • Sources that are not hull-mounted: —1 Lookout on the ship or aircraft conducting the activity. *Mitigation Requirements:* • Mitigation zones: —1,000 yd (914.4 m) power down, 500 yd (457.2 m) power down, and 200 yd (182.9 m) shut down for hull-mounted mid-frequency active sonar (see *During the activity* below). —200 yd (182.9 m) shut down for mid-frequency active sonar sources that are not hull-mounted, and high-frequency active sonar (see *During the activity* below). • Prior to the initial start of the activity (*e.g.,* when maneuvering on station): —Navy personnel will observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel will relocate or delay the start of active sonar transmission until the mitigation zone is clear of floating vegetation or the *Commencement/recommencement* conditions in this table are met for marine mammals. • During the activity: —Hull-mounted mid-frequency active sonar: Navy personnel will observe the mitigation zone for marine mammals; Navy personnel will power down active sonar transmission by 6 dB if a marine mammal is observed within 1,000 yd (914.4 m) of the sonar source; Navy personnel will power down active sonar transmission an additional 4 dB (10 dB total) if a marine mammal is observed within 500 yd (457.2 m) of the sonar source; Navy personnel will cease transmission if a marine mammal is observed within 200 yd (182.9 m) of the sonar source. —Mid-frequency active sonar sources that are not hull-mounted, and high-frequency active sonar: Navy personnel will observe the mitigation zone for marine mammals; Navy personnel will cease transmission if a marine mammal is observed within 200 yd (182.9 m) of the sonar source. • Commencement/recommencement conditions after a marine mammal sighting before or during the activity: —Navy personnel will allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing or powering up active sonar transmission) until one of the following conditions has been met: (1) the animal is observed exiting the mitigation zone; (2) the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the sonar source; (3) the mitigation zone has been clear from any additional sightings for 10 minutes for aircraft-deployed sonar sources or 30 minutes for vessel-deployed sonar sources; (4) for mobile activities, the active sonar source has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting; or (5) for activities using hull-mounted sonar, the Lookout concludes that dolphins are deliberately closing in on the ship to ride the ship's bow wave, and are therefore out of the main transmission axis of the sonar (and there are no other marine mammal sightings within the mitigation zone).

TABLE 33—PROCEDURAL MITIGATION FOR WEAPONS FIRING NOISE

Procedural mitigation description
Stressor or Activity: • Weapon firing noise associated with large-caliber gunnery activities. *Number of Lookouts and Observation Platform:* • 1 Lookout positioned on the ship conducting the firing —Depending on the activity, the Lookout could be the same one described in Procedural Mitigation for Explosive Large-Caliber Projectiles (Table 34) or Procedural Mitigation for Small-, Medium-, and Large-Caliber Non-Explosive Practice Munitions (Table 38). *Mitigation Requirements:* • Mitigation zone: —30° on either side of the firing line out to 70 yd (64 m) from the muzzle of the weapon being fired. • Prior to the initial start of the activity: —Navy personnel will observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel will relocate or delay the start of weapon firing until the mitigation zone is clear of floating vegetation or the *Commencement/recommencement* conditions in this table are met for marine mammals. • During the activity: —Navy personnel will observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel will cease weapon firing. • Commencement/recommencement conditions after a marine mammal sighting before or during the activity: —Navy personnel will allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing weapon firing) until one of the following conditions has been met: (1) the animal is observed exiting the mitigation zone; (2) the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the firing ship; (3) the mitigation zone has been clear from any additional sightings for 30 minutes; or (4) for mobile activities, the firing ship has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

Procedural Mitigation for Explosive Stressors

Mitigation measures for explosive stressors are provided in Table 34 and Table 35.

TABLE 34—PROCEDURAL MITIGATION FOR EXPLOSIVE LARGE-CALIBER PROJECTILES

Procedural mitigation description
Stressor or Activity: • Gunnery activities using explosive large-caliber projectiles. —Mitigation applies to activities using a surface target. *Number of Lookouts and Observation Platform:* • 1 Lookout on the vessel or aircraft conducting the activity. —Depending on the activity, the Lookout could be the same as the one described for Procedural Mitigation for Weapons Firing Noise in Table 33. • If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.,* safety observers, evaluators) will support observing the mitigation zone for marine mammals while performing their regular duties. *Mitigation Requirements:* • Mitigation zones: —1,000 yd (914.4 m) around the intended impact location. • Prior to the initial start of the activity (*e.g.,* when maneuvering on station): —Navy personnel will observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel will relocate or delay the start of firing until the mitigation zone is clear of floating vegetation or the *Commencement/recommencement* conditions in this table are met for marine mammals. • During the activity: —Navy personnel will observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel will cease firing. • Commencement/recommencement conditions after a marine mammal sighting before or during the activity: —Navy personnel will allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: (1) the animal is observed exiting the mitigation zone; (2) the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location; (3) the mitigation zone has been clear from any additional sightings for 30 minutes; or (4) for activities using mobile targets, the intended impact location has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting. • After completion of the activity (*e.g.,* prior to maneuvering off station): —Navy personnel will, when practical (*e.g.,* when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel will follow established incident reporting procedures. —If additional platforms are supporting this activity (*e.g.,* providing range clearance), Navy personnel positioned on these assets will assist in the visual observation of the area where detonations occurred.

TABLE 35—PROCEDURAL MITIGATION FOR EXPLOSIVE BOMBS

Procedural mitigation description
Stressor or Activity: • Explosive bombs. *Number of Lookouts and Observation Platform:* • 1 Lookout positioned in the aircraft conducting the activity. • If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.,* safety observers, evaluators) will support observing the mitigation zone for marine mammals while performing their regular duties. *Mitigation Requirements:* • Mitigation zone: —2,500 yd (2,286 m) around the intended target. • Prior to the initial start of the activity (*e.g.,* when arriving on station): —Navy personnel will observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel will relocate or delay the start of bomb deployment until the mitigation zone is clear of floating vegetation or the *Commencement/recommencement* conditions in this table are met for marine mammals. • During the activity (*e.g.,* during target approach): —Navy personnel will observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel will cease bomb deployment. • Commencement/recommencement conditions after a marine mammal sighting before or during the activity: —Navy personnel will allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing bomb deployment) until one of the following conditions has been met: (1) the animal is observed exiting the mitigation zone; (2) the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended target; (3) the mitigation zone has been clear from any additional sightings for 10 minutes; or (4) for activities using mobile targets, the intended target has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting. • After completion of the activity (*e.g.,* prior to maneuvering off station): —Navy personnel will, when practical (*e.g.,* when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel will follow established incident reporting procedures. —If additional platforms are supporting this activity (*e.g.,* providing range clearance), Navy personnel positioned on these assets will assist in the visual observation of the area where detonations occurred.

Procedural Mitigation for Physical Disturbance and Strike Stressors

Mitigation measures for physical disturbance and strike stressors are provided in Table 36 through Table 39.

TABLE 36—PROCEDURAL MITIGATION FOR VESSEL MOVEMENT

Procedural Mitigation Description
Stressor or Activity: • Vessel movement —The mitigation will not be applied if (1) the vessel's safety is threatened, (2) the vessel is restricted in its ability to maneuver (*e.g.,* during launching and recovery of aircraft or landing craft, during towing activities, when mooring), (3) the vessel is submerged or operated autonomously, or (4) when impractical based on mission requirements (*e.g.,* during Vessel Visit, Board, Search, and Seizure activities as military personnel from ships or aircraft board suspect vessels). *Number of Lookouts and Observation Platform:* • 1 or more Lookouts on the underway vessel • If additional watch personnel are positioned on underway vessels, those personnel (*e.g.,* persons assisting with navigation or safety) will support observing for marine mammals while performing their regular duties. *Mitigation Requirements:* • Mitigation zones: —500 yd (457.2 m) around the vessel for whales. —200 yd (182.9 m) around the vessel for marine mammals other than whales (except those intentionally swimming alongside or closing in to swim alongside vessels, such as bow-riding or wake-riding dolphins). • When Underway: —Navy personnel will observe the direct path of the vessel and waters surrounding the vessel for marine mammals. —If a marine mammal is observed in the direct path of the vessel, Navy personnel will maneuver the vessel as necessary to maintain the appropriate mitigation zone distance. —If a marine mammal is observed within waters surrounding the vessel, Navy personnel will maintain situational awareness of that animal's position. Based on the animal's course and speed relative to the vessel's path, Navy personnel will maneuver the vessel as necessary to ensure that the appropriate mitigation zone distance from the animal continues to be maintained. • Additional requirements: —If a marine mammal vessel strike occurs, Navy personnel will follow established incident reporting procedures.

TABLE 37—PROCEDURAL MITIGATION FOR TOWED IN-WATER DEVICES

Procedural mitigation description
Stressor or Activity: • Towed in-water devices —Mitigation applies to devices that are towed from a manned surface platform or manned aircraft, or when a manned support craft is already participating in an activity involving in-water devices being towed by unmanned platforms. —The mitigation will not be applied if the safety of the towing platform or in-water device is threatened. *Number of Lookouts and Observation Platform:* • 1 Lookout positioned on the towing platform or support craft. *Mitigation Requirements:* • Mitigation zones: —250 yd (228.6 m) around the towed in-water device for marine mammals (except those intentionally swimming alongside or choosing to swim alongside towing vessels, such as bow-riding or wake-riding dolphins) • During the activity (*i.e.,* when towing an in-water device) —Navy personnel will observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel will maneuver to maintain distance.

TABLE 38—PROCEDURAL MITIGATION FOR SMALL-, MEDIUM-, AND LARGE-CALIBER NON-EXPLOSIVE PRACTICE MUNITIONS

Procedural mitigation description
Stressor or Activity: • Gunnery activities using small-, medium-, and large-caliber non-explosive practice munitions —Mitigation applies to activities using a surface target. *Number of Lookouts and Observation Platform:* • 1 Lookout positioned on the platform conducting the activity. —Depending on the activity, the Lookout could be the same as the one described in Procedural Mitigation for Weapons Firing Noise (Table 33). *Mitigation Requirements:* • Mitigation zone: —200 yd (182.9 m) around the intended impact location • Prior to the initial start of the activity (*e.g.,* when maneuvering on station): —Navy personnel will observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel will relocate or delay the start of firing until the mitigation zone is clear of floating vegetation or the *Commencement/recommencement* conditions in this table are met for marine mammals. • During the activity: —Navy personnel will observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel will cease firing. • Commencement/recommencement conditions after a marine mammal, sighting before or during the activity: —Navy personnel will allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: (1) the animal is observed exiting the mitigation zone; (2) the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location; (3) the mitigation zone has been clear from any additional sightings for 10 minutes for aircraft-based firing or 30 minutes for vessel-based firing; or (4) for activities using a mobile target, the intended impact location has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

TABLE 39—PROCEDURAL MITIGATION FOR NON-EXPLOSIVE BOMBS

Procedural mitigation description
Stressor or Activity: • Non-explosive bombs. *Number of Lookouts and Observation Platform:* • 1 Lookout positioned in an aircraft. *Mitigation Requirements:* • Mitigation zone: —1,000 yd (914.4 m) around the intended target. • Prior to the initial start of the activity (*e.g.,* when arriving on station): —Navy personnel will observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel will relocate or delay the start of bomb deployment until the mitigation zone is clear of floating vegetation or the *Commencement/recommencement* conditions in this table are met for marine mammals. • During the activity (*e.g.,* during approach of the target): —Navy personnel will observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel will cease bomb deployment. • Commencement/recommencement conditions after a marine mammal sighting prior to or during the activity: —Navy personnel will allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing bomb deployment) until one of the following conditions has been met: (1) the animal is observed exiting the mitigation zone; (2) the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended target; (3) the mitigation zone has been clear from any additional sightings for 10 minutes; or (4) for activities using mobile targets, the intended target has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

Mitigation Areas

In addition to procedural mitigation, the Navy would implement mitigation measures within mitigation areas to avoid or minimize potential impacts on marine mammals. The Navy took into account the best available science and the practicability of implementing additional mitigation measures, and has enhanced its mitigation measures beyond those that were included in the 2017–2022 regulations to further reduce impacts to marine mammals.

Information on the mitigation measures that the Navy would implement within mitigation areas is provided in Table 40 (see below).

NMFS conducted an independent analysis of the mitigation areas that the Navy proposed, which are described below. NMFS preliminarily concurs with the Navy's analysis, which indicates that the measures in these mitigation areas are both practicable and would reduce the likelihood or severity of adverse impacts to marine mammal species or their habitat in the manner described in the Navy's analysis and this rule. NMFS is heavily reliant on the Navy's description of operational practicability, since the Navy is best equipped to describe the degree to which a given mitigation measure affects personnel safety or mission effectiveness, and is practical to implement. The Navy considers the measures in this proposed rule to be practicable, and NMFS concurs. We further discuss the manner in which the Geographic Mitigation Areas in the proposed rule would reduce the likelihood or severity of adverse impacts to marine mammal species or their habitat in the Preliminary Analysis and Negligible Impact Determination section.

TABLE 40—GEOGRAPHIC MITIGATION AREAS FOR MARINE MAMMALS IN THE GOA STUDY AREA

Mitigation area description
Stressor or Activity: • Sonar. • Explosives. • Physical disturbance and strikes. *Mitigation Requirements:* [1] • North Pacific Right Whale Mitigation Area. —From June 1–September 30 within the North Pacific Right Whale Mitigation Area, Navy personnel will not use surface ship hull-mounted MF1 mid-frequency active sonar during training. • Continental Shelf and Slope Mitigation Area. —Navy personnel will not detonate explosives below 10,000 ft. altitude (including at the water surface) in the Continental Shelf and Slope Mitigation Area during training. • Pre-event Awareness Notifications in the Temporary Maritime Activities Area. —The Navy will issue pre-event awareness messages to alert vessels and aircraft participating in training activities within the TMAA to the possible presence of concentrations of large whales on the continental shelf and slope. Occurrences of large whales may be higher over the continental shelf and slope relative to other areas of the TMAA. Large whale species in the TMAA include, but are not limited to, fin whale, blue whale, humpback whale, gray whale, North Pacific right whale, sei whale, and sperm whale. To maintain safety of navigation and to avoid interactions with marine mammals, the Navy will instruct personnel to remain vigilant to the presence of large whales that may be vulnerable to vessel strikes or potential impacts from training activities. Additionally, Navy personnel will use the information from the awareness notification messages to assist their visual observation of applicable mitigation zones during training activities and to aid in the implementation of procedural mitigation.

[1] Should national security present a requirement to conduct training prohibited by the mitigation requirements specified in this table, naval units will obtain permission from the designated Command, U.S. Third Fleet Command Authority, prior to commencement of the activity. The Navy will provide NMFS with advance notification and include relevant information about the event (*e.g.,* sonar hours, use of explosives detonated below 10,000 ft altitude (including at the water surface) in its annual activity reports to NMFS.

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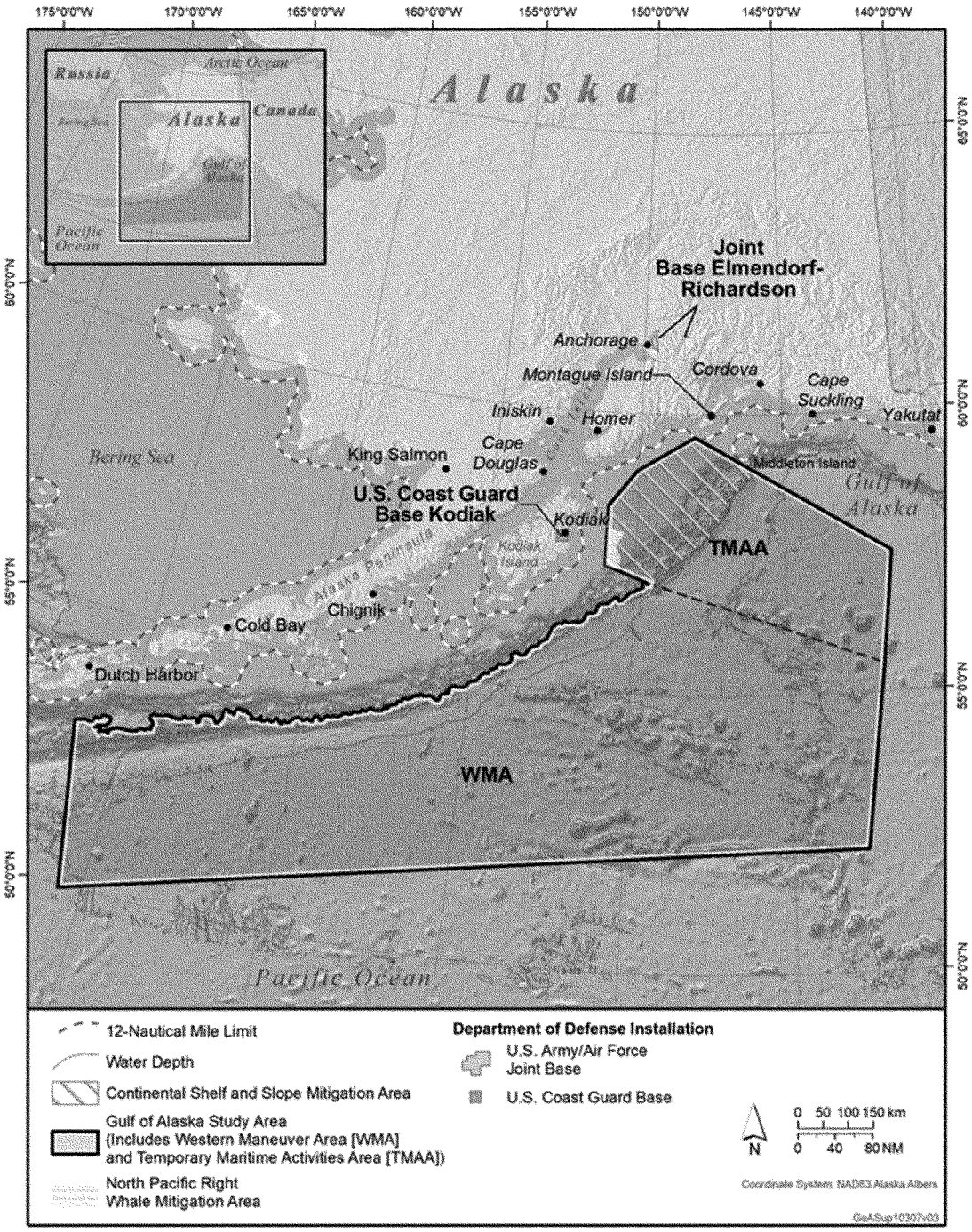

Figure 2-- Geographic Mitigation Areas for Marine Mammals in the GOA Study Area

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North Pacific Right Whale Mitigation Area

Mitigation within the North Pacific Right Whale Mitigation Area is primarily designed to avoid or further reduce potential impacts to North Pacific right whales within important feeding habitat. The mitigation area fully encompasses the portion of the BIA identified by Ferguson *et al.* (2015) for North Pacific right whale feeding that overlaps the GOA Study Area (overlap between the GOA Study Area and the BIA occurs in the TMAA only) (Figure 2). North Pacific right whales are thought to occur in the highest densities in the BIA from June to September. The Navy would not use surface ship hull-mounted MF1 mid-frequency active sonar in the mitigation area from June 1 to September 30, as was also required in the Phase II (2017–2022) rule. The North Pacific Right Whale Mitigation Area is fully within the boundary of the Continental Shelf and Slope Mitigation Area, discussed below. Therefore, the mitigation requirements in that area also apply to the North Pacific Right Whale

Mitigation Area. While the potential occurrence of North Pacific right whales in the GOA Study Area is expected to be rare due to the species' extremely low population, these mitigation requirements would help further avoid or further reduce the potential for impacts to occur within North Pacific right whale feeding habitat, thus likely reducing the number of takes of North Pacific right whales, as well as the severity of any disturbances by reducing the likelihood that feeding is interrupted, delayed, or precluded for some limited amount of time.

Additionally, the North Pacific Right Whale Mitigation Area overlaps with a small portion of the humpback whale critical habitat Unit 5, in the southwest corner of the TMAA. While the overlap of the two areas is limited, mitigation in the North Pacific Right Whale Mitigation Area may reduce the number and/or severity of takes of humpback whales in this important area.

The mitigation in this area would also help avoid or reduce potential impacts on fish and invertebrates that inhabit the mitigation area and which marine mammals prey upon. As described in Section 5.4.1.5 (Fisheries Habitats) of the 2020 GOA DSEIS/OEIS, the productive waters off Kodiak Island support a strong trophic system from plankton, invertebrates, small fish, and higher-level predators, including large fish and marine mammals.

Continental Shelf and Slope Mitigation Area

The Continental Shelf and Slope Mitigation Area encompasses the portion of the continental shelf and slope that overlaps the TMAA (the entire continental shelf and slope out to the 4,000 m depth contour; Figure 2). The Navy would not detonate explosives below 10,000 ft. altitude (including at the water surface) in the Continental Shelf and Slope Mitigation Area during training. (As stated previously, the Navy does not plan to use in-water explosives anywhere in the GOA Study Area.) Mitigation in the Continental Shelf and Slope Mitigation Area was initially designed to avoid or reduce potential impacts on fishery resources for Alaska Natives. However, the area includes highly productive waters where marine mammals, including humpback whales (Lagerquist *et al.* 2008) and North Pacific right whales, feed, and overlaps with a small portion of the North Pacific right whale feeding BIA off of Kodiak Island. Additionally, the Continental Shelf and Slope Mitigation Area overlaps with a very small portion of the humpback whale critical habitat Unit 5, on the western side of the TMAA, and a small portion of humpback whale critical habitat Unit 8 on the north side of the TMAA. The Continental Shelf and Slope mitigation area also overlaps with a very small portion of the gray whale migration BIA. The remainder of the designated critical habitat and BIAs are located beyond the boundaries of the GOA Study Area. While the overlap of the mitigation area with critical habitat and feeding and migratory BIAs is limited, mitigation in the Continental Shelf and Slope Mitigation Area may reduce the probability, number, and/or severity of takes of humpback whales, North Pacific right whales, and gray whales in this important area (noting that no takes are predicted for gray whales). Additionally, mitigation in this area will likely reduce the number and severity of potential impacts to marine mammals in general, by reducing the likelihood that feeding is interrupted, delayed, or precluded for some limited amount of time.

Pre-Event Awareness Notifications in the Temporary Maritime Activities Area

The Navy will issue awareness messages prior to the start of TMAA training activities to alert vessels and aircraft operating within the TMAA to the possible presence of concentrations of large whales, including but not limited to, fin whale, blue whale, humpback whale, gray whales, North Pacific right whale, sei whale, minke whale, and sperm whale, especially when traversing on the continental shelf and slope where densities of these species may be higher. To maintain safety of navigation and to avoid interactions with marine mammals, the Navy will instruct vessels to remain vigilant to the presence of large whales that may be vulnerable to vessel strikes or potential impacts from training activities. Navy personnel will use the information from the awareness notification messages to assist their visual observation of applicable mitigation zones during training activities and to aid in the implementation of procedural mitigation.

This mitigation would help avoid or further reduce any potential impacts from vessel strikes and training activities on large whales within the TMAA.

Availability for Subsistence Uses

The nature of subsistence activities by Alaska Natives in the GOA Study Area are discussed below, in the Subsistence Harvest of Marine Mammals section of this proposed rule.

Mitigation Conclusions

NMFS has carefully evaluated the Navy's proposed mitigation measures—many of which were developed with NMFS' input during the previous phases of Navy training authorizations but several of which are new since implementation of the 2017 to 2022 regulations—and considered a broad range of other measures (*i.e.,* the measures considered but eliminated in the 2020 GOA DSEIS/OEIS, which reflect many of the comments that have arisen from public input or through discussion with NMFS in past years) in the context of ensuring that NMFS prescribes the means of effecting the least practicable adverse impact on the affected marine mammal species 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 mitigation measures is expected to reduce the likelihood and/or magnitude of adverse impacts to marine mammal species and their habitat; the proven or likely efficacy of the measures; and the practicability of the measures for applicant implementation, including consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

Based on our evaluation of the Navy's proposed measures, as well as other measures considered by the Navy and NMFS, NMFS has preliminarily determined that these proposed mitigation measures are appropriate means of effecting the least practicable adverse impact on marine mammal species and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and considering specifically personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. Additionally, an adaptive management component helps further ensure that mitigation is regularly assessed and provides a mechanism to improve the mitigation, based on the factors above, through modification as appropriate.

The proposed rule comment period provides the public an opportunity to submit recommendations, views, and/or concerns regarding the Navy's activities and the proposed mitigation measures. While NMFS has preliminarily determined that the Navy's proposed mitigation measures would effect the least practicable adverse impact on the affected species and their habitat, NMFS

will consider all public comments to help inform our final determination. 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, as appropriate, analysis of additional potential mitigation measures.

Proposed Monitoring

Section 101(a)(5)(A) of the MMPA states that in order to authorize incidental take 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 incidental take authorizations 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.

Although the Navy has been conducting research and monitoring for over 20 years in areas where it has been training, it developed a formal marine species monitoring program in support of the GOA Study Area MMPA and ESA processes in 2009. Across all Navy training and testing study areas, the robust marine species monitoring program has resulted in hundreds of technical reports and publications on marine mammals that have informed Navy and NMFS analyses in environmental planning documents, rules, and Biological Opinions. The reports are made available to the public on the Navy's marine species monitoring website (*www.navymarinespeciesmonitoring.us*) and the data on the Ocean Biogeographic Information System Spatial Ecological Analysis of Megavertebrate Populations (OBIS–SEAMAP) (*https://seamap.env.duke.edu/*).

The Navy would continue collecting monitoring data to inform our understanding of the occurrence of marine mammals in the GOA Study Area; the likely exposure of marine mammals to stressors of concern in the GOA Study Area; the response of marine mammals to exposures to stressors; the consequences of a particular marine mammal response to their individual fitness and, ultimately, populations; and the effectiveness of implemented mitigation measures. Taken together, mitigation and monitoring comprise the Navy's integrated approach for reducing environmental impacts from the specified activities. The Navy's overall monitoring approach seeks to leverage and build on existing research efforts whenever possible.

As agreed upon between the Navy and NMFS, the monitoring measures presented here, as well as the mitigation measures described above, focus on the protection and management of potentially affected marine mammals. A well-designed monitoring program can provide important feedback for validating assumptions made in analyses and allow for adaptive management of marine resources. Monitoring is required under the MMPA, and details of the monitoring program for the specified activities have been developed through coordination between NMFS and the Navy through the regulatory process for previous Navy at-sea training and testing activities.

Integrated Comprehensive Monitoring Program

The Navy's Integrated Comprehensive Monitoring Program (ICMP) is intended to coordinate marine species 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 through the adaptive management and strategic planning processes to periodically assess progress and reevaluate objectives. This process includes conducting an annual adaptive management review meeting, at which the Navy and NMFS jointly consider the prior-year goals, monitoring results, and related scientific advances to determine if monitoring plan modifications are warranted to more effectively address program goals. Although the ICMP does not specify actual monitoring field work or individual projects, it does establish a matrix of goals and objectives that have been developed in coordination with NMFS. As the ICMP is implemented through the Strategic Planning Process, detailed and specific studies will be developed which support the Navy's and NMFS 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 contribute towards or accomplish one or more of the following top-level goals:

- An increase in the understanding of the likely occurrence of marine mammals and ESA-listed marine species in the vicinity of the action (*i.e.,* presence, abundance, distribution, and density of species);
- An increase in the understanding of the nature, scope, or context of the likely exposure of marine mammals and ESA-listed species to any of the potential stressors associated with the action (*e.g.,* sound, explosive detonation, or expended materials), through better understanding of one or more of the following: (1) the nature of the action and its surrounding environment (*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 ESA-listed marine species with the action (in whole or part), and (4) the likely biological or behavioral context of exposure to the stressor for the marine mammal and ESA-listed marine species (*e.g.,* age class of exposed animals or known pupping, calving, or feeding areas);
- An increase in the 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 the 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 impacts on annual rates of recruitment or survival);
- An increase in the understanding of the effectiveness of mitigation and monitoring measures;
- A better understanding and record of the manner in which the Navy complies with the incidental take regulations and LOAs and the ESA Incidental Take Statement;
- An increase in the probability of detecting marine mammals (through improved technology or methods), both specifically within the mitigation zone (thus allowing for more effective implementation of the mitigation) and in general, to better achieve the above goals; and
- Ensuring that adverse impacts of activities remain at the least practicable level.

Strategic Planning Process for Marine Species Monitoring

The Navy also developed the Strategic Planning Process for Marine Species Monitoring, which serves to guide the investment of resources to most efficiently address ICMP objectives and intermediate scientific objectives developed through this process. The

Strategic Planning Process establishes the guidelines and processes necessary to develop, evaluate, and fund individual projects based on objective scientific study questions. The process uses an underlying framework designed around intermediate scientific objectives and a conceptual framework incorporating a progression of knowledge spanning occurrence, exposure, response, and consequence. The Strategic Planning Process for Marine Species Monitoring is used to set overarching intermediate scientific objectives; develop individual monitoring project concepts; evaluate, prioritize, and select specific monitoring projects to fund or continue supporting for a given fiscal year; execute and manage selected monitoring projects; and report and evaluate progress and results. This process addresses 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. More information on the Strategic Planning Process for Marine Species Monitoring including results, reports, and publications, is also available online (*https://www.navymarinespecies monitoring.us/).*

Past and Current Monitoring in the GOA Study Area

The monitoring program has undergone significant changes since the first rule was issued for the TMAA in 2011, which highlights the monitoring program's evolution through the process of adaptive management. The monitoring program developed for the first cycle of environmental compliance documents (*e.g.,* U.S. Department of the Navy, 2008a, 2008b) utilized effort-based compliance metrics that were somewhat limiting. Through adaptive management discussions, the Navy designed and conducted monitoring studies according to scientific objectives and eliminated specific effort requirements.

Progress has also been made on the conceptual framework categories from the Scientific Advisory Group for Navy Marine Species Monitoring (U.S. Department of the Navy, 2011), ranging from occurrence of animals, to their exposure, response, and population consequences. The Navy continues to manage the Atlantic and Pacific program as a whole, including what is now the GOA Study Area, with monitoring in each range complex taking a slightly different but complementary approach. The Navy has continued to use the approach of layering multiple simultaneous components in many of the range complexes to leverage an increase in return of the progress toward answering scientific monitoring questions. This includes in the TMAA, for example (a) Passive Acoustic Monitoring for Marine Mammals in the Gulf of Alaska Temporary Maritime Activities Area May to September 2015 and April to September 2017 (Rice *et al.,* 2018b); (b) analysis of existing passive acoustic monitoring datasets; and (c) Passive Acoustic Monitoring of Marine Mammals Using Gliders (Klinck *et al.,* 2016).

Numerous publications, dissertations, and conference presentations have resulted from research conducted under the marine species monitoring program, including research conducted in what is now the GOA Study Area (*https://www.navymarinespeciesmonitoring.us/reading-room/publications/*), leading to a significant contribution to the body of marine mammal science. Publications on occurrence, distribution, and density have fed the modeling input, and publications on exposure and response have informed Navy and NMFS analysis of behavioral response and consideration of mitigation measures.

Furthermore, collaboration between the monitoring program and the Navy's research and development (*e.g.,* the Office of Naval Research) and demonstration-validation (*e.g.,* Living Marine Resources) programs has been strengthened, leading to research tools and products that have already transitioned to the monitoring program. These include Marine Mammal Monitoring on Ranges, controlled exposure experiment behavioral response studies, acoustic sea glider surveys, and global positioning system-enabled satellite tags. Recent progress has been made with better integration with monitoring across all Navy at-sea study areas, including the AFTT Study Area in the Atlantic Ocean, and various other ranges. Publications from the Living Marine Resources and Office of Naval Research programs have also resulted in significant contributions to hearing, acoustic criteria used in effects modeling, exposure, and response, as well as in developing tools to assess biological significance (*e.g.,* consequences).

NMFS and the Navy also consider data collected during procedural mitigations as monitoring. Data are collected by shipboard personnel on hours spent training, hours of observation, hours of sonar, and marine mammals observed within the mitigation zones when mitigations are implemented. These data are provided to NMFS in both classified and unclassified annual training reports, which would continue under this proposed rule.

NMFS has received multiple years' worth of annual training and monitoring reports addressing active sonar use and explosive detonations within the TMAA and other Navy range complexes. The data and information contained in these reports have been considered in developing mitigation and monitoring measures for the proposed training activities within the GOA Study Area. The Navy's annual training and monitoring reports may be viewed at: *https://www.navymarinespecies monitoring.us/reporting/.*

The Navy's marine species monitoring program supports monitoring projects in the GOA Study Area. Additional details on the scientific objectives for each project can be found at *https://www.navymarinespeciesmonitoring.us/regions/pacific/current-projects/.* Projects can be either major multi-year efforts, or one to 2-year special studies. The emphasis on monitoring in the GOA Study Area is directed towards collecting and analyzing passive acoustic monitoring and telemetry data for marine mammals and salmonids.

Specific monitoring under the previous regulations (which covered only the TMAA) included:

- The continuation of the Navy's collaboration with NOAA on the *Pacific Marine Assessment Program for Protected Species (PacMAPPS)* survey. A systematic line transect survey in the Gulf of Alaska was completed in 2021. A second PacMAPPS survey is planned for the Gulf of Alaska in 2023. These surveys will increase knowledge of marine mammal occurrence, density, and population identity in the TMAA.
- A *Characterizing the Distribution of ESA-Listed Salmonids in Washington and Alaska* study. The goal of this study is to use a combination of acoustic and pop-up satellite tagging technology to provide critical information on spatial and temporal distribution of salmonids to inform salmon management, U.S. Navy training activities, and Southern Resident killer whale conservation. The study seeks to (1) determine the occurrence and timing of salmonids within the Navy training ranges; (2) describe the influence of environmental covariates on salmonid occurrence; and (3) describe the occurrence of salmonids in relation to Southern Resident killer whale distribution. Methods include acoustic telemetry (pinger tags) and pop-up satellite tagging.
- A *Telemetry and Genetic Identity of Chinook Salmon in Alaska* study. The goal of this study is to provide critical

information on the spatial and temporal distribution of Chinook salmon and to utilize genetic analysis techniques to inform salmon management. Tagging is occurring at several sites within the Gulf of Alaska.

• A *North Pacific Humpback Whale Tagging* study. This project combines tagging, biopsy sampling, and photo-identification efforts along the United States west coast and Hawaii to examine movement patterns and whale use of Navy training and testing areas and NMFS-identified BIAs, examine migration routes, and analyze dive behavior and ecological relationships between whale locations and oceanographic conditions (Mate *et al.,* 2017; Irvine *et al.,* 2020).

Future monitoring efforts in the GOA Study Area are anticipated to continue along the same objectives: determining the species and populations of marine mammals present and potentially exposed to Navy training activities in the GOA Study Area, through tagging, passive acoustic monitoring, refined modeling, photo identification, biopsies, and visual monitoring, as well as characterizing spatial and temporal distribution of salmonids, including Chinook salmon.

Adaptive Management

The proposed regulations governing the take of marine mammals incidental to Navy training activities in the GOA Study Area contain an adaptive management component. Our understanding of the effects of Navy training activities (*e.g.,* acoustic and explosive stressors) on marine mammals continues to evolve, which makes the inclusion of an adaptive management component both valuable and necessary within the context of 7-year regulations.

The reporting requirements associated with this rule are designed to provide NMFS with monitoring data from the previous year to allow NMFS to consider whether any changes to existing mitigation and monitoring requirements 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 more effectively accomplishing the goals of the mitigation and monitoring and if the measures are practicable. If the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS would publish a notice of the planned LOA in the **Federal Register** and solicit public comment.

The following are some of the possible sources of applicable data to be considered through the adaptive management process: (1) results from monitoring and exercise reports, as required by MMPA authorizations; (2) compiled results of Navy funded research and development 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 LOA. The results from monitoring reports and other studies may be viewed at *https://www.navymarinespeciesmonitoring.us.*

Proposed Reporting

In order to issue incidental take authorization 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. 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: *https://www.navymarinespeciesmonitoring.us.*

There are several different reporting requirements pursuant to the 2017–2022 regulations. All of these reporting requirements would be continued under this proposed rule for the 7-year period; however, the reporting schedule for the GOA Annual Training Report would be slightly changed to align the reporting schedule with the activity period (see the *GOA Annual Training Report* section, below*).*

Notification of Injured, Live Stranded, or Dead Marine Mammals

The Navy would consult the Notification and Reporting Plan, which sets out notification, reporting, and other requirements when injured, live stranded, or dead marine mammals are detected. The Notification and Reporting Plan is available for review at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-military-readiness-activities.*

Annual GOA Marine Species Monitoring Report

The Navy would submit an annual report to NMFS of the GOA Study Area monitoring, which would be included in a Pacific-wide monitoring report and include results specific to the GOA Study Area, describing the implementation and results of monitoring from the previous calendar year. Data collection methods would be standardized across Pacific Range Complexes including the MITT, HSTT, NWTT, and GOA Study Areas to the best extent practicable, to allow for comparison among different geographic locations. The report would be submitted to the Director, Office of Protected Resources, NMFS, either within 3 months after the end of the calendar year, or within 3 months after the conclusion of the monitoring year, to be determined by the Adaptive Management process. NMFS would submit comments or questions on the draft monitoring report, if any, within 3 months of receipt. The report would be considered final after the Navy has addressed NMFS' comments, or 3 months after submittal if NMFS does not provide comments on the report. The report would describe progress of knowledge made with respect to monitoring study questions across multiple Navy ranges associated with the ICMP. Similar study questions would be treated together so that progress on each topic is summarized across all Navy ranges. The report need not include analyses and content that does not provide direct assessment of cumulative progress on the monitoring plan study questions. This would allow the Navy to provide a cohesive monitoring report covering multiple ranges (as per ICMP goals), rather than entirely separate reports for the MITT, HSTT, NWTT, and GOA Study Areas.

GOA Annual Training Report

Each year in which training activities are conducted in the GOA Study Area, the Navy would submit one preliminary report (Quick Look Report) to NMFS detailing the status of applicable sound sources within 21 days after the completion of the training activities in the GOA Study Area. Each year in which activities are conducted, the Navy would also submit a detailed report (GOA Annual Training Report) to NMFS within 3 months after completion of the training activities. The Phase II rule required the Navy to submit the GOA Annual Training Report within 3 months after the anniversary of the date of issuance of the LOA. NMFS would submit comments or questions on the

report, if any, within one month of receipt. The report would be considered final after the Navy has addressed NMFS' comments, or one month after submittal if NMFS does not provide comments on the report. The annual reports would contain information about the MTE, (exercise designator, date that the exercise began and ended, location, number and types of active and passive sonar sources used in the exercise, number and types of vessels and aircraft that participated in the exercise, *etc.*), individual marine mammal sighting information for each sighting in each exercise where mitigation was implemented, a mitigation effectiveness evaluation, and a summary of all sound sources used (total hours or quantity of each bin of sonar or other non-impulsive source; total annual number of each type of explosive(s); and total annual expended/detonated rounds (bombs and large-caliber projectiles) for each explosive bin).

The annual report (which, as stated above, would only be required during years in which activities are conducted) would also contain cumulative sonar and explosive use quantity from previous years' reports through the current year. Additionally, if there were any changes to the sound source allowance in the reporting year, or cumulatively, the report would include a discussion of why the change was made and include analysis to support how the change did or did not affect the analysis in the GOA SEIS/OEIS and MMPA final rule. The analysis in the detailed report would be based on the accumulation of data from the current year's report and data collected from previous annual reports. The final annual/close-out report at the conclusion of the authorization period (year seven) would also serve as the comprehensive close-out report and include both the final year annual use compared to annual authorization as well as a cumulative 7-year annual use compared to 7-year authorization. This report would also note any years in which training did not occur. NMFS must submit comments on the draft close-out report, if any, within 3 months of receipt. The report would 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. Information included in the annual reports may be used to inform future adaptive management of activities within the GOA Study Area. See the regulations below for more detail on the content of the annual report.

Other Reporting and Coordination

The Navy would continue to report and coordinate with NMFS for the following:

- Annual marine species monitoring technical review meetings that also include researchers and the Marine Mammal Commission; and
- Annual Adaptive Management meetings that also include the Marine Mammal Commission (and occur in conjunction with the annual marine species monitoring technical review meetings).

Preliminary Analysis and Negligible Impact Determination

General Negligible Impact Analysis

Introduction

NMFS has defined negligible impact 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 (50 CFR 216.103). 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 takes alone is not enough information on which to base an impact determination. For Level A harassment or Level B harassment (as presented in Table 30), in addition to considering estimates of the number of marine mammals that might be taken NMFS considers other factors, such as the likely nature of any responses (*e.g.,* intensity, duration) and the context of any responses (*e.g.,* critical reproductive time or location, migration), as well as effects on habitat and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS' implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, other ongoing sources of human-caused mortality, and ambient noise levels).

In the Estimated Take of Marine Mammals section, we identified the subset of potential effects that would be expected to rise to the level of takes both annually and over the 7-year period covered by this proposed rule, and then identified the maximum number of harassment takes that are reasonably expected to occur based on the methods described. The impact that any given take would have is dependent on many case-specific factors that need to be considered in the negligible impact analysis (*e.g.,* the context of behavioral exposures such as duration or intensity of a disturbance, the health of impacted animals, the status of a species that incurs fitness-level impacts to individuals, *etc.*). For this proposed rule we evaluated the likely impacts of the enumerated maximum number of harassment takes that are proposed for authorization and reasonably expected to occur, in the context of the specific circumstances surrounding these predicted takes. Last, we collectively evaluated this information, as well as other more taxa-specific information and mitigation measure effectiveness, in group-specific assessments that support our negligible impact conclusions for each stock or species. Because all of the Navy's specified activities would occur within the ranges of the marine mammal stocks identified in the rule, all negligible impact analyses and determinations are at the stock level (*i.e.,* additional species-level determinations are not needed).

As explained in the Estimated Take of Marine Mammals section, no take by serious injury or mortality is authorized or anticipated to occur. There have been no recorded Navy vessel strikes of any marine mammals during training in the GOA Study Area to date, nor were incidental takes by injury or mortality resulting from vessel strike predicted in the Navy's analysis. For these and the other reasons described in the *Potential Effects of Vessel Strike* section, NMFS concurs that vessel strike is not likely to occur during the 21-day GOA Study Area training activities, and therefore is not proposing authorization in this rule.

The specified activities reflect representative levels of training activities. The Description of the Specified Activity section describes annual activities. There may be some flexibility in the exact number of hours, items, or detonations that may vary from year to year, but take totals would not exceed the maximum annual totals and 7-year totals indicated in Table 30. (Further, as noted previously, the GOA Study Area training activities would not occur continuously throughout the year, but rather, for a maximum of 21 days once annually between April and October.) We base our analysis and negligible impact determination on the maximum number of takes that would be reasonably expected to occur annually and are proposed to be authorized, although, as stated before,

the number of takes is only a part of the analysis, which includes extensive qualitative consideration of other contextual factors that influence the degree of impact of the takes on the affected individuals. To avoid repetition, we provide some general analysis immediately below that applies to all the species listed in Table 30, given that some of the anticipated effects of the Navy's training activities on marine mammals are expected to be relatively similar in nature. However, below that, we break our analysis into species (and/or stocks), or groups of species (and the associated stocks) where relevant similarities exist, to provide more specific information related to the anticipated effects on individuals of a specific stock or where there is information about the status or structure of any species or stock that would lead to a differing assessment of the effects on the species or stock. Organizing our analysis by grouping species or stocks that share common traits or that would respond similarly to effects of the Navy's activities and then providing species- or stock-specific information allows us to avoid duplication while assuring that we have analyzed the effects of the specified activities on each affected species or stock.

Harassment

The Navy's harassment take request is based on a model and quantitative assessment of mitigation, which NMFS reviewed and concurs appropriately predicts the maximum amount of harassment that is reasonably likely to occur, with the exception of the Eastern North Pacific stock of gray whale, and the Western North Pacific stock of humpback whale, for which NMFS has proposed authorizing 4 and 3 Level B harassment takes annually, respectively, as described in the Estimated Take of Marine Mammals section. The model calculates sound energy propagation from sonar, 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 energy received by a marine mammal exceeds the thresholds for effects. Assumptions in the Navy model intentionally err on the side of overestimation when there are unknowns. Naval activities are modeled as though they would occur regardless of proximity to marine mammals, meaning that no mitigation is considered (*e.g.,* no power down or shut down) and without any avoidance of the activity by the animal. As described above in the Estimated Take of Marine Mammals section, no mortality was modeled for any species for the TMAA activities, and therefore the quantitative post-modeling analysis that allows for the consideration of mitigation to prevent mortality, which has been applied in other Navy rules, was appropriately not applied here. (Though, as noted in the Estimated Take of Marine Mammals section, where the analysis indicates mitigation would effectively reduce risk, the model-estimated PTS are considered reduced to TTS.) NMFS provided input to, independently reviewed, and concurs with the Navy on this process and the Navy's analysis, which is described in detail in Section 6 of the Navy's rulemaking/LOA application, that was used to quantify harassment takes for this rule.

Generally speaking, 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 for behavioral effects throughout species, individuals, or circumstances) and less severe effects from takes resulting from exposure to lower received levels. However, there is also growing evidence of the importance of distance in predicting marine mammal behavioral response to sound—*i.e.,* sounds of a similar level emanating from a more distant source have been shown to be less likely to evoke a response of equal magnitude (DeRuiter 2012, Falcone *et al.* 2017). The estimated number of takes by Level A harassment and Level B harassment 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 above the Level A harassment and Level B harassment threshold) that are anticipated to occur annually and over the 7-year period. These instances may represent either brief exposures (seconds or minutes) or, in some cases, longer durations of exposure within a day. Some individuals may experience multiple instances of take (meaning over multiple days) over the course of the 21 day exercise, which means that the number of individuals taken is smaller than the total estimated takes. Generally speaking, the higher the number of takes as compared to the population abundance, the more repeated takes of individuals are likely, and the higher the actual percentage of individuals in the population that are likely taken at least once in a year. We look at this comparative metric to give us a relative sense of where a larger portion of a species is being taken by Navy activities, where there is a higher likelihood that the same individuals are being taken across multiple days, and where that number of days might be higher or more likely sequential. Where the number of instances of take is less than 100 percent of the abundance and there is no information to specifically suggest that a small subset of animals is being repeatedly taken over a high number of sequential days, the overall magnitude is generally considered low, as it could on one extreme mean that every take represents a separate individual in the population being taken on one day (a very minimal impact) or, more likely, that some smaller number of individuals are taken on one day annually and some are taken on a few not likely sequential days annually, while some are not taken at all.

In the ocean, the use of sonar and other active acoustic sources is often transient and is unlikely to repeatedly expose the same individual animals within a short period, for example within one specific exercise. However, for some individuals of some species repeated exposures across different activities could occur across the 21-day period. In short, for some species we expect that the total anticipated takes represent exposures of a smaller number of individuals of which some would be exposed multiple times, but based on the nature of the Navy activities and the movement patterns of marine mammals, it is unlikely that individuals from most stocks would be taken over more than a few non-sequential days. This means that even where repeated takes of individuals may occur, they are more likely to result from non-sequential exposures from different activities, and, even if a few individuals were taken on sequential days, they are not predicted to be taken for more than a few days in a row, at most. As described elsewhere, the nature of the majority of the exposures would be expected to be of a less severe nature and based on the numbers and duration of the activity (no more than 21 days) any individual exposed multiple times is still only taken on a small percentage of the days of the year.

Physiological Stress Response

Some of the lower level physiological stress responses (*e.g.,* orientation or startle response, change in respiration, change in heart rate) discussed earlier would 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. Takes by Level A harassment or Level B harassment, then, may have a

stress-related physiological component as well; however, we would not expect the Navy's generally short-term, intermittent, and (typically in the case of sonar) transitory activities to create conditions of long-term continuous noise leading to long-term physiological stress responses in marine mammals that could affect reproduction or survival.

Behavioral Response

The estimates calculated using the BRF do not differentiate between the different types of behavioral responses that rise to the level of take by Level B harassment. As described in the Navy's application, the Navy identified (with NMFS' input) the types of behaviors that would be considered a take: Moderate behavioral responses as characterized in Southall *et al.* (2007) (*e.g.,* altered migration paths or dive profiles, interrupted nursing, breeding or feeding, or avoidance) that also would be expected to continue for the duration of an exposure. The Navy then compiled the available data indicating at what received levels and distances those responses have occurred, and used the indicated literature to build biphasic behavioral response curves that are used to predict how many instances of Level B harassment by behavioral disturbance occur in a day. Take estimates alone do not provide information regarding the potential fitness or other biological consequences of the reactions on the affected individuals. We therefore consider the available activity-specific, environmental, and species-specific information to determine the likely nature of the modeled behavioral responses and the potential fitness consequences for affected individuals.

Use of sonar and other transducers would typically be transient and temporary. The majority of acoustic effects to individual animals from sonar and other active sound sources during training activities would be primarily from ASW events. It is important to note that although ASW is one of the warfare areas of focus during Navy training, there are significant periods when active ASW sonars are not in use. Behavioral reactions are assumed more likely to be significant during MTEs than during other ASW activities due to the use of high-powered ASW sources as well as the duration (*i.e.,* multiple days) and scale (*i.e.,* multiple sonar platforms) of the MTEs.

On the less severe end, exposure to comparatively lower levels of sound at a detectably greater distance from the animal, for a few or several minutes, could result in a behavioral response such as avoiding an area that an animal would otherwise have moved through or fed in, or breaking off one or a few feeding bouts. More severe effects could occur when the animal gets close enough to the source to receive a comparatively higher level of sound, is exposed continuously to one source for a longer time, or is exposed intermittently to different sources throughout a day. Such effects might result in an animal having a more severe flight response and leaving a larger area for a day or more or potentially losing feeding opportunities for a day. However, such severe behavioral effects are expected to occur infrequently.

To help assess this, for sonar (MFAS/HFAS) used in the TMAA, the Navy provided information estimating the percentage of animals that may be taken by Level B harassment under each BRF that would occur within 6-dB increments (percentages discussed below in the *Group and Species-Specific Analyses* section). As mentioned above, all else being equal, an animal's exposure to a higher received level is more likely to result in a behavioral response that is more likely to lead to adverse effects, which could more likely accumulate to impacts on reproductive success or survivorship of the animal, but other contextual factors (such as distance) are also important. The majority of takes by Level B harassment are expected to be in the form of milder responses (*i.e.,* lower-level exposures that still rise to the level of take, but would likely be less severe in the range of responses that qualify as take) of a generally shorter duration. We anticipate more severe effects from takes when animals are exposed to higher received levels of sound or at closer proximity to the source. Because species belonging to taxa that share common characteristics are likely to respond and be affected in similar ways, these discussions are presented within each species group below in the *Group and Species-Specific Analyses* section. As noted previously in this proposed rule, behavioral responses vary considerably between species, between individuals within a species, and across contexts of different exposures. Specifically, given a range of behavioral responses that may be classified as Level B harassment, to the degree that higher received levels of sound are expected to result in more severe behavioral responses, only a smaller percentage of the anticipated Level B harassment from Navy activities might necessarily be expected to potentially result in more severe responses (see the *Group and Species-Specific Analyses* section below for more detailed information). To fully understand the likely impacts of the predicted/proposed authorized take on an individual (*i.e.,* what is the likelihood or degree of fitness impacts), one must look closely at the available contextual information, such as the duration of likely exposures and the likely severity of the exposures (*e.g.,* whether they would occur for a longer duration over sequential days or the comparative sound level that would be received). Ellison *et al.* (2012) and Moore and Barlow (2013), among others, emphasize the importance of context (*e.g.,* behavioral state of the animals, distance from the sound source, *etc.*) in evaluating behavioral responses of marine mammals to acoustic sources.

Diel Cycle

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). Henderson *et al.* (2016) found that ongoing smaller scale events had little to no impact on foraging dives for Blainville's beaked whale, while multi-day training events may decrease foraging behavior for Blainville's beaked whale (Manzano-Roth *et al.,* 2016). 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). Note that there is a difference between multiple-day substantive behavioral reactions and multiple-day anthropogenic activities. For example, just because an at-sea exercise lasts for multiple days does not necessarily mean that individual animals are either exposed to those exercises for multiple days or, further, exposed in a manner resulting in a sustained multiple day substantive behavioral response. Large multi-day Navy exercises such as ASW activities, typically include vessels that are continuously moving at speeds typically 10–15 kn (19–28 km/hr), or higher, and likely cover large areas that are relatively far from shore (typically more than 3 nmi (6 km) from shore) and in waters greater than 600 ft (183 m) deep. Additionally marine mammals are moving as well, 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. Further, the Navy does not necessarily operate active sonar the entire time during an exercise. While it is certainly possible that these sorts of exercises could overlap with individual marine mammals multiple days in a row at levels above those anticipated to result in a take, because of the factors mentioned above, it is considered unlikely for the majority of takes. However, it is also worth noting that the Navy conducts many different types of noise-producing activities over the course of the 21-day exercise, and it is likely that some marine mammals will be exposed to more than one activity and taken on multiple days, even if they are not sequential.

Durations of Navy activities utilizing tactical sonar sources and explosives vary and are fully described in Appendix A (*Navy Activity Descriptions*) of the 2020 GOA DSEIS/OEIS. Sonar used during ASW would impart the greatest amount of acoustic energy of any category of sonar and other transducers analyzed in the Navy's rulemaking/LOA application and include hull-mounted, towed array, sonobuoy, and helicopter dipping sonars. Most ASW sonars are MFAS (1–10 kHz); however, some sources may use higher frequencies. ASW training activities using hull mounted sonar proposed for the TMAA generally last for only a few hours (see Appendix A (*Navy Activity Descriptions*) of the 2020 GOA DSEIS/OEIS). Some ASW training activities typically last about 8 hours. Because of the need to train in a large variety of situations, the Navy does not typically conduct successive ASW exercises in the same locations. Given the average length of ASW exercises (times of sonar use) and typical vessel speed, combined with the fact that the majority of the cetaceans would not likely remain in proximity to the sound source, it is unlikely that an animal would be exposed to MFAS/HFAS at levels or durations likely to result in a substantive response that would then be carried on for more than 1 day or on successive days (and as noted previously, no LFAS use is planned by the Navy).

Most planned explosive events are scheduled to occur over a short duration (1–3 hours); however, the explosive component of these activities only lasts for minutes. 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, or demonstrate sustained behavioral responses. All of these factors make it unlikely that individuals would be exposed to the exercise for extended periods or on consecutive days, though some individuals may be exposed on multiple days.

Assessing the Number of Individuals Taken and the Likelihood of Repeated Takes

As described previously, Navy modeling uses the best available science to predict the instances of exposure above certain acoustic thresholds, which are equated, as appropriate, to harassment takes (and further corrected to account for mitigation and avoidance). As further noted, for active acoustics it is more challenging to parse out the number of individuals taken by Level B harassment and the number of times those individuals are taken from this larger number of instances. One method that NMFS uses to help better understand the overall scope of the impacts is to compare these total instances of take against the abundance of that species (or stock if applicable). For example, if there are 100 harassment takes in a population of 100, one can assume either that every individual was exposed above acoustic thresholds in no more than one day, or that some smaller number were exposed in one day but a few of those individuals were exposed multiple days within a year and a few were not exposed at all. Where the instances of take exceed 100 percent of the population, multiple takes of some individuals are predicted and expected to occur within a year. Generally speaking, the higher the number of takes as compared to the population abundance, the more multiple takes of individuals are likely, and the higher the actual percentage of individuals in the population that are likely taken at least once in a year. We look at this comparative metric to give us a relative sense of where larger portions of the species or stock are being taken by Navy activities and where there is a higher likelihood that the same individuals are being taken across multiple days and where that number of days might be higher. It also provides a relative picture of the scale of impacts to each species or stock.

In the ocean, unlike a modeling simulation with static animals, the use of sonar and other active acoustic sources is often transient, and is unlikely to repeatedly expose the same individual animals within a short period, for example within one specific exercise. However, some repeated exposures across different activities could occur over the year with more resident species. Nonetheless, the episodic nature of activities in the TMAA (21 days per year) would mean less frequent exposures as compared to some other ranges. In short, we expect that for some stocks, the total anticipated takes represent exposures of a smaller number of individuals of which some could be exposed multiple times, but based on the nature of the Navy's activities and the movement patterns of marine mammals, it is unlikely that individuals of most species or stocks would be taken over more than a few non-sequential days within a year.

When calculating the proportion of a population affected by takes (*e.g.,* the number of takes divided by population abundance), which can also be helpful in estimating the number of days over which some individuals may be taken, it is important to choose an appropriate population estimate against which to make the comparison. The SARs, where available, provide the official population estimate for a given species or stock in U.S. waters in a given year (and are typically based solely on the most recent survey data). When the stock is known to range well outside of U.S. Exclusive Economic Zone (EEZ) boundaries, population estimates based on surveys conducted only within the U.S. EEZ are known to be underestimates. The information used to estimate take includes the best available survey abundance data to model density layers. Accordingly, in calculating the percentage of takes versus abundance for each species or stock in order to assist in understanding both the percentage of the species or stock affected, as well as how many days across a year individuals could be taken, we use the data most appropriate for the situation. For the GOA Study Area, for all species and stocks except for beaked whales for which SAR data are unavailable, the most recent NMFS SARs are used to calculate the proportion of a population affected by takes.

The estimates found in NMFS' SARs remain the official estimates of stock abundance where they are current. These estimates are typically generated from the most recent shipboard and/or aerial surveys conducted. In some cases, NMFS' abundance estimates show substantial year-to-year variability. However, for highly migratory species (*e.g.,* large whales) or those whose geographic distribution extends well beyond the boundaries of the GOA Study Area (*e.g.,* populations with distribution along the entire eastern Pacific Ocean rather than just the GOA Study Area), comparisons to the SAR

are appropriate. Many of the stocks present in the GOA Study Area have ranges significantly larger than the GOA Study Area and that abundance is captured by the SAR. A good descriptive example is migrating large whales, which occur seasonally in the GOA. Therefore, at any one time there may be a stable number of animals, but over the course of the potential activity period (April to October), the entire population could occur in the GOA Study Area. Therefore, comparing the estimated takes to an abundance, in this case the SAR abundance, which represents the total population, may be more appropriate than modeled abundances for only the GOA Study Area.

Temporary Threshold Shift

NMFS and the Navy have estimated that most species or stocks of marine mammals in the TMAA may sustain some level of TTS from active sonar. As mentioned previously, in general, 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. Table 41 to Table 46 indicate the number of takes by TTS that may be incurred by different species and stocks from exposure to active sonar and explosives. 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 Navy's MF sources, which are the highest power and most numerous sources and the ones that cause the most take, utilize the 1–10 kHz frequency band, which suggests that if TTS were to be induced by any of these MF sources it would be in a frequency band somewhere between approximately 2 and 20 kHz, which is in the range of communication calls for many odontocetes, but below the range of the echolocation signals used for foraging. 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), which could overlap with the range in which some odontocetes communicate or echolocate. 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 unlikely. As noted previously, the Navy proposes no LFAS use for the activities in this rulemaking. The frequency provides information about the cues to which a marine mammal may be temporarily less sensitive, but not the degree or duration of sensitivity loss. The majority of sonar sources from which TTS may be incurred occupy a narrow frequency band, which means that the TTS incurred would also be across a narrower band (*i.e.,* not affecting the majority of an animal's hearing range). TTS from explosives would be broadband.

2. Degree of the shift (*i.e.,* by how many dB the sensitivity of the hearing is reduced)—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 rule. 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 kn; 19–28 km/hr) and the relative motion between the sonar vessel and the animal. In the TTS studies discussed in the Potential Effects of Specified Activities on Marine Mammals and their Habitat section, 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, since any hull-mounted sonar such as the SQS–53 (MFAS), emits a ping typically every 50 seconds, incurring those levels of TTS is highly unlikely. Since any hull-mounted sonar, such as the SQS–53, engaged in anti-submarine warfare training would be moving at between 10 and 15 kn (19–28 km/hr) and nominally pinging every 50 seconds, the vessel would have traveled a minimum distance of approximately 257 m during the time between those pings. A scenario could occur where an animal does not leave the vicinity of a ship or travels a course parallel to the ship, however, the close distances required make TTS exposure unlikely. For a Navy vessel moving at a nominal 10 kn (19 km/hr), it is unlikely a marine mammal could maintain speed parallel to the ship and receive adequate energy over successive pings to suffer TTS.

In short, given the anticipated duration and levels of sound exposure, we would not expect marine mammals to incur more than relatively low levels of TTS (*i.e.,* single digits of sensitivity loss). To add context to this degree of TTS, individual marine mammals may regularly experience variations of 6 dB differences in hearing sensitivity across time (Finneran *et al.,* 2000, 2002; Schlundt *et al.,* 2000).

3. Duration of TTS (recovery time)—In the TTS laboratory studies (as discussed in the Potential Effects of Specified Activities on Marine Mammals and their Habitat section), 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), although 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 TMAA, 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 hours—and any incident of TTS would likely be far less severe due to the short duration of the majority of the events during the 21 days and the speed of a typical vessel, especially given the fact that the higher power sources resulting in TTS are predominantly intermittent, which have been shown to result in shorter durations of TTS. Also, for the same reasons discussed in the Preliminary Analysis and Negligible Impact Determination—*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 would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations or other critical auditory cues.

Tables 41 to 46 indicate the number of incidental takes by TTS for each species or stock that are likely to result from the Navy's activities. As a general point, the majority of these TTS takes are the result of exposure to hull-

mounted MFAS (MF narrower band sources), with fewer from explosives (broad-band lower frequency sources), and even fewer from HFAS sources (narrower band). As described above, we expect the majority of these takes to be in the form of mild (single-digit), short-term (minutes to hours), narrower band (only affecting a portion of the animal's hearing range) TTS. This means that for one to several times within the 21 days, for several minutes to maybe a few hours at most each, a taken individual will have slightly diminished hearing sensitivity (slightly more than natural variation, but nowhere near total deafness). More often than not, such an exposure would occur within a narrower mid- to higher frequency band that may overlap part (but not all) of a communication, echolocation, or predator range, but sometimes across a lower or broader bandwidth. The significance of TTS is also related to the auditory cues that are germane within the time period that the animal incurs the TTS. For example, if an odontocete has TTS at echolocation frequencies, but incurs it at night when it is resting and not feeding, it is not impactful. In short, the expected results of any one of these limited number of mild TTS occurrences could be that (1) it does not overlap signals that are pertinent to that animal in the given time period, (2) it overlaps parts of signals that are important to the animal, but not in a manner that impairs interpretation, or (3) it reduces detectability of an important signal to a small degree for a short amount of time—in which case the animal may be aware and be able to compensate (but there may be slight energetic cost), or the animal may have some reduced opportunities (*e.g.,* to detect prey) or reduced capabilities to react with maximum effectiveness (*e.g.,* to detect a predator or navigate optimally). However, given the small number of times that any individual might incur TTS, the low degree of TTS and the short anticipated duration, and the low likelihood that one of these instances would occur in a time period in which the specific TTS overlapped the entirety of a critical signal, it is unlikely that TTS of the nature expected to result from the Navy activities would result in behavioral changes or other impacts that would impact any individual's (of any hearing sensitivity) reproduction or survival.

Auditory Masking or Communication Impairment

The ultimate potential impacts of masking on an individual (if it were to occur) are similar to those discussed for TTS, but an important difference is that masking only occurs during the time of the signal, versus TTS, which continues beyond the duration of the signal. Fundamentally, masking is referred to as a chronic effect because one of the key harmful components of masking is its duration—the fact that an animal would have reduced ability to hear or interpret critical cues becomes much more likely to cause a problem the longer it is occurring. Also inherent in the concept of masking is the fact that the potential for the effect is only present during the times that the animal and the source are in close enough proximity for the effect to occur (and further, this time period would need to coincide with a time that the animal was utilizing sounds at the masked frequency). As our analysis has indicated, because of the relative movement of vessels and the species involved in this rule, we do not expect the exposures with the potential for masking to be of a long duration. In addition, masking is fundamentally more of a concern at lower frequencies, because low frequency signals propagate significantly further than higher frequencies and because they are more likely to overlap both the narrower LF calls of mysticetes, as well as many non-communication cues such as fish and invertebrate prey, and geologic sounds that inform navigation (although the Navy proposes no LFAS use for the activities in this rulemaking). Masking is also more of a concern from continuous sources (versus intermittent sonar signals) where there is no quiet time between pulses within which auditory signals can be detected and interpreted. For these reasons, dense aggregations of, and long exposure to, continuous LF activity are much more of a concern for masking, whereas comparatively short-term exposure to the predominantly intermittent pulses of often narrow frequency range MFAS or HFAS, or explosions are not expected to result in a meaningful amount of masking. While the Navy occasionally uses LF and more continuous sources (although, as noted above, the Navy proposes no LFAS use for the activities in this rulemaking), it is not in the contemporaneous aggregate amounts that would accrue to a masking concern. Specifically, the nature of the activities and sound sources used by the Navy do not support the likelihood of a level of masking accruing that would have the potential to affect reproductive success or survival. Additional detail is provided below.

Standard hull-mounted MFAS typically pings every 50 seconds. Some hull-mounted anti-submarine sonars can also be used in an object detection mode known as ''Kingfisher'' mode (*e.g.,* used on vessels when transiting to and from port) where pulse length is shorter but pings are much closer together in both time and space since the vessel goes slower when operating in this mode (note also that the duty cycle for MF11 and MF12 sources is greater than 80 percent). For the majority of other sources, the pulse length is significantly shorter than hull-mounted active sonar, on the order of several microseconds to tens of milliseconds. Some of the vocalizations that many marine mammals make are less than one second long, so, for example with hull-mounted sonar, there would be a 1 in 50 chance (only if the source was in close enough proximity for the sound to exceed the signal that is being detected) that a single vocalization might be masked by a ping. However, when vocalizations (or series of vocalizations) are longer than one second, masking would not occur. Additionally, when the pulses are only several microseconds long, the majority of most animals' vocalizations would not be masked.

Most ASW sonars and countermeasures use MF frequencies and a few use HF frequencies. Most of these sonar signals are limited in the temporal, frequency, and spatial domains. The duration of most individual sounds is short, lasting up to a few seconds each. A few systems operate with higher duty cycles or nearly continuously, but they typically use lower power, which means that an animal would have to be closer, or in the vicinity for a longer time, to be masked to the same degree as by a higher level source. Nevertheless, masking could occasionally occur at closer ranges to these high-duty cycle and continuous active sonar systems, but as described previously, it would be expected to be of a short duration when the source and animal are in close proximity. While data are limited on behavioral responses of marine mammals to continuously active sonars (Isojunno *et al.,* 2020), mysticete species are known to be able to habituate to novel and continuous sounds (Nowacek *et al.,* 2004), suggesting that they are likely to have similar responses to high-duty cycle sonars. Furthermore, most of these systems are hull-mounted on surface ships with the ships moving at least 10 kn (19 km/hr), and it is unlikely that the ship and the marine mammal would continue to move in the same direction and the marine mammal subjected to the same exposure due to that movement. Most ASW activities are

geographically dispersed and last for only a few hours, often with intermittent sonar use even within this period. Most ASW sonars also have a narrow frequency band (typically less than one-third octave). These factors reduce the likelihood of sources causing significant masking. HF signals (above 10 kHz) attenuate more rapidly in the water due to absorption than do lower frequency signals, thus producing only a very small zone of potential masking. If masking or communication impairment were to occur briefly, it would more likely be in the frequency range of MFAS (the more powerful source), which overlaps with some odontocete vocalizations (but few mysticete vocalizations); however, it would likely not mask the entirety of any particular vocalization, communication series, or other critical auditory cue, because the signal length, frequency, and duty cycle of the MFAS/HFAS signal does not perfectly resemble the characteristics of any single marine mammal species' vocalizations.

Other sources used in Navy training that are not explicitly addressed above, many of either higher frequencies (meaning that the sounds generated attenuate even closer to the source) or lower amounts of operation, are similarly not expected to result in masking. For the reasons described here, any limited masking that could potentially occur would be minor and short-term.

In conclusion, masking is more likely to occur in the presence of broadband, relatively continuous noise sources such as from vessels, however, the duration of temporal and spatial overlap with any individual animal and the spatially separated sources that the Navy uses would not be expected to result in more than short-term, low impact masking that would not affect reproduction or survival.

PTS From Sonar Acoustic Sources and Explosives and Non-Auditory Tissue Damage From Explosives

Tables 41 to 46 indicate the number of individuals of each species or stock for which Level A harassment in the form of PTS resulting from exposure to active sonar and/or explosives is estimated to occur. The Northeast Pacific stock of fin whale, Alaska stock of Dall's porpoise, and California stock of Northern elephant seal are the only stocks which may incur PTS (from sonar and explosives). For all other species/stocks only take by Level B harassment (behavioral disturbance and/or TTS) is anticipated. No species/stocks have the potential to incur non-auditory tissue damage from training activities.

Data suggest 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-emitting vessel at a close distance, NMFS has determined that the mitigation measures (*i.e.,* shutdown/powerdown zones for active sonar) 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 ASW exercises, passive acoustic detections are used as a cue for Lookouts' visual observations when passive acoustic assets are already participating in an activity) in addition to Lookouts on vessels to detect marine mammals for mitigation implementation. As discussed previously, the Navy utilized a post-modeling quantitative assessment to adjust the take estimates based on avoidance and the likely success of some portion of the mitigation measures. As is typical in predicting biological responses, it is challenging to predict exactly how avoidance and mitigation would affect the take of marine mammals. Therefore, in conducting the post-modeling quantitative assessment, the Navy erred on the side of caution in choosing a method that would more likely still overestimate the take by PTS to some degree. Nonetheless, these Level A harassment take numbers represent the maximum number of instances in which marine mammals would be reasonably expected to incur PTS, and we have analyzed them accordingly.

If a marine mammal is able to approach a surface vessel within the distance necessary to incur PTS in spite of the mitigation measures, the likely speed of the vessel (nominally 10–15 kn (19–28 km/hr)) and relative motion of the vessel 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 discussed previously 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. The majority of any PTS incurred as a result of exposure to Navy sources would be expected to be in a narrow band in the 2–20 kHz range (resulting from the most powerful hull-mounted sonar) and could overlap a small portion of the communication frequency range of many odontocetes, whereas other marine mammal groups have communication calls at lower frequencies. Regardless of the frequency band, the more important point in this case is that any PTS accrued as a result of exposure to Navy activities would be expected to be of a small amount (single digits of dB hearing loss). Permanent loss of some degree of hearing is a normal occurrence for older animals, and many animals are able to compensate for the shift, both in old age or at younger ages as the result of stressor exposure. While a small loss of hearing sensitivity may include some degree of energetic costs for compensating or may mean some small loss of opportunities or detection capabilities, at the expected scale it would be unlikely to impact behaviors, opportunities, or detection capabilities to a degree that would interfere with reproductive success or survival.

The Navy implements mitigation measures (described in the Proposed Mitigation Measures section) during explosive activities, including delaying detonations when a marine mammal is observed in the mitigation zone. Nearly all explosive events would occur during daylight hours to improve the sightability of marine mammals and thereby improve mitigation effectiveness. Observing for marine mammals during the explosive activities would include visual and passive acoustic detection methods (when they are available and part of the activity) before the activity begins, in order to cover the mitigation zones that can range from 200 yd (182.9 m) to 2,500 yd (2,286 m) depending on the source (*e.g.,* explosive bombs; see Table 34 and Table 35). For all of these reasons, the proposed mitigation measures associated with explosives are expected to further ensure that no non-auditory tissue damage occurs to any potentially affected species, and no species are anticipated to incur non-auditory tissue damage during the period of the proposed rule.

Group and Species-Specific Analyses

The maximum amount and type of incidental take of marine mammals reasonably likely to occur and therefore proposed to be authorized from exposures to sonar and other active acoustic sources and in-air explosions at or above the water surface during the 7-year training period are shown in Table 30. The vast majority of predicted exposures (greater than 99 percent) are expected to be non-injurious Level B harassment (TTS and behavioral disturbance) from acoustic and

explosive sources during training activities at relatively low received levels. A small number of takes by Level A harassment (PTS only) are predicted for three species (Dall's porpoise, fin whales, and Northern elephant seals).

In the discussions below, the estimated takes by Level B harassment represent instances of take, not the number of individuals taken (the less frequent Level A harassment takes are far more likely to be associated with separate individuals), and in some cases individuals may be taken more than one time. Below, we compare the total take numbers (including PTS, TTS, and behavioral disturbance) for species or stocks to their associated abundance estimates to evaluate the magnitude of impacts across the species and to individuals. Generally, when an abundance percentage comparison is below 100, it means that that percentage or less of the individuals would be affected (*i.e.,* some individuals would not be taken at all), that the average for those taken is one day per year, and that we would not expect any individuals to be taken more than a few times during the 21 days per year. When it is more than 100 percent, it means there would definitely be some number of repeated takes of individuals. For example, if the percentage is 300, the average would be each individual is taken on 3 days in a year if all were taken, but it is more likely that some number of individuals would be taken more than three times and some number of individuals fewer or not at all. While it is not possible to know the maximum number of days across which individuals of a stock might be taken, in acknowledgement of the fact that it is more than the average, for the purposes of this analysis, we assume a number approaching twice the average. For example, if the percentage of take compared to the abundance is 800, we estimate that some individuals might be taken as many as 16 times. Those comparisons are included in the sections below.

To assist in understanding what this analysis means, we clarify a few issues related to estimated takes and the analysis here. An individual that incurs a PTS or TTS take may sometimes, for example, also be subject to behavioral disturbance at the same time. As described above in this section, the degree of PTS, and the degree and duration of TTS, expected to be incurred from the Navy's activities are not expected to impact marine mammals such that their reproduction or survival could be affected. Similarly, data do not suggest that a single instance in which an animal accrues PTS or TTS and is also subjected to behavioral disturbance would result in impacts to reproduction or survival. Alternately, we recognize that if an individual is subjected to behavioral disturbance repeatedly for a longer duration and on consecutive days, effects could accrue to the point that reproductive success is jeopardized, although those sorts of impacts are not expected to result from these activities. Accordingly, in analyzing the number of takes and the likelihood of repeated and sequential takes, we consider the total takes, not just the takes by Level B harassment by behavioral disturbance, so that individuals potentially exposed to both threshold shift and behavioral disturbance are appropriately considered. The number of Level A harassment takes by PTS are so low (and zero in most cases) compared to abundance numbers that it is considered highly unlikely that any individual would be taken at those levels more than once.

Occasional, milder behavioral reactions are unlikely to cause long-term consequences for individual animals or populations, and even if some smaller subset of the takes are in the form of a longer (several hours or a day) and more severe response, if they are not expected to be repeated over sequential days, impacts to individual fitness are not anticipated. Nearly all studies and experts agree that infrequent exposures of a single day or less are unlikely to impact an individual's overall energy budget (Farmer *et al.,* 2018; Harris *et al.,* 2017; King *et al.,* 2015; NAS 2017; New *et al.,* 2014; Southall *et al.,* 2007; Villegas-Amtmann *et al.,* 2015).

If impacts to individuals are of a magnitude or severity such that either repeated and sequential higher severity impacts occur (the probability of this goes up for an individual the higher total number of takes it has) or the total number of moderate to more severe impacts increases substantially, especially if occurring across sequential days, then it becomes more likely that the aggregate effects could potentially interfere with feeding enough to reduce energy budgets in a manner that could impact reproductive success via longer cow-calf intervals, terminated pregnancies, or calf mortality. It is important to note that these impacts would only accrue to females, which only comprise a portion of the population (typically approximately 50 percent). Based on energetic models, it takes energetic impacts of a significantly greater magnitude to cause the death of an adult marine mammal, and females will always terminate a pregnancy or stop lactating before allowing their health to deteriorate. Also, the death of an adult female has significantly more impact on population growth rates than reductions in reproductive success, while the death of an adult male has very little effect on population growth rates. However, as will be explained further in the sections below, the severity and magnitude of takes expected to result from Navy activities in the TMAA are such that energetic impacts of a scale that might affect reproductive success are not expected to occur at all.

The analyses below in some cases address species collectively if they occupy the same functional hearing group (*i.e.,* low, mid, and high-frequency cetaceans), share similar life history strategies, and/or are known to behaviorally respond similarly to acoustic stressors. Because some of these groups or species share characteristics that inform the impact analysis similarly, it would be duplicative to repeat the same analysis for each species. In addition, similar species typically have the same hearing capabilities and behaviorally respond in the same manner.

Thus, our analysis below considers the effects of the Navy's activities on each affected species or stock even where discussion is organized by functional hearing group and/or information is evaluated at the group level. Where there are meaningful differences between a species or stock that would further differentiate the analysis, they are either described within the section or the discussion for those species or stocks is included as a separate subsection. Specifically below, we first provide broad discussion of the expected effects on the mysticete, odontocete, and pinniped groups generally, and then differentiate into further groups as appropriate.

Mysticetes

This section builds on the broader discussion above and brings together the discussion of the different types and amounts of take that different species and stocks would likely incur, the applicable mitigation, and the status of the species and stocks to support the preliminary negligible impact determinations for each species or stock. We have described (earlier in this section) the unlikelihood of any masking having effects that would impact the reproduction or survival of any of the individual marine mammals affected by the Navy's activities. We have also described above in the Potential Effects of Specified Activities on Marine Mammals and their Habitat section the unlikelihood of any habitat impacts having effects that would

impact the reproduction or survival of any of the individual marine mammals affected by the Navy's activities. For mysticetes, there is no predicted non-auditory tissue damage from explosives for any species, and only two fin whales could be taken by PTS by exposure to in-air explosions at or above the water surface. Much of the discussion below focuses on the behavioral effects and the mitigation measures that reduce the probability or severity of effects. Because there are species-specific and stock-specific considerations, at the end of the section we break out our findings on a species-specific and, for one species, stock-specific basis.

In Table 41 below for mysticetes, we indicate for each species and stock the total annual numbers of take by Level A harassment and Level B harassment, and a number indicating the instances of total take as a percentage of abundance.

TABLE 41—ANNUAL ESTIMATED TAKES BY LEVEL B HARASSMENT AND LEVEL A HARASSMENT FOR MYSTICETES AND NUMBER INDICATING THE INSTANCES OF TOTAL TAKE AS A PERCENTAGE OF SPECIES/STOCK ABUNDANCE

Species	Stock	Instances of indicated types of incidental take [1]			Total takes	Abundance (NMFS SARs) [2]	Instances of total take as percentage of abundance
		Level B harassment		Level A harassment			
		Behavioral disturbance	TTS (may also include disturbance)	PTS			
North Pacific right whale	Eastern North Pacific	1	2	0	3	31	9.7
Humpback whale	California, Oregon, & Washington.	2	8	0	10	4,973	<1
	Central North Pacific	11	68	0	79	10,103	<1
	Western North Pacific	[3] 3	0	0	[3] 3	1,107	<1
Blue whale	Central North Pacific	0	3	0	3	133	2.3
	Eastern North Pacific	4	32	0	36	1,898	1.9
Fin whale	Northeast Pacific	115	1,127	2	1,244	[4] 3,168	39.3
Sei whale	Eastern North Pacific	3	34	0	37	519	7.1
Minke whale	Alaska	6	44	0	50	[5] 389	12.9
Gray whale	Eastern North Pacific	[3] 4	0	0	[3] 4	26,960	<1

[1] Estimated impacts are based on the maximum number of activities in a given year under the specified activity. Not all takes represent separate individuals, especially for behavioral disturbance.
[2] Presented in the 2021 draft SARs or most recent SAR.
[3] The Navy's Acoustic Effects Model estimated zero takes for each of these stocks. However, NMFS conservatively proposes to authorize take by Level B harassment of one group of Western North Pacific humpback whale and one group of Eastern North Pacific gray whale. The annual take estimates reflect the average group sizes of on- and off-effort survey sightings of humpback whale and gray whale (excluding an outlier of an estimated 25 gray whales in one group) reported in Rone *et al.* (2017).
[4] The SAR reports this stock abundance assessment as provisional and notes that it is an underestimate for the entire stock because it is based on surveys which covered only a small portion of the stock's range.
[5] The 2018 final SAR (most recent SAR) for the Alaska stock of minke whales reports the stock abundance as unknown because only a portion of the stock's range has been surveyed. To be conservative, for this stock we report the smallest estimated abundance produced during recent surveys.

The majority of takes by harassment of mysticetes in the TMAA would be caused by anti-submarine warfare (ASW) activities. Anti-submarine activities include sources from the MFAS bin (which includes hull-mounted sonar). They are high level, narrowband sources in the 1–10 kHz range, which intersect what is estimated to be the most sensitive area of hearing for mysticetes. They also are used in a large portion of exercises (see Table 1 and Table 3). Most of the takes (88 percent) from the MF1 bin in the TMAA would result from received levels between 166 and 178 dB SPL, while another 11 percent would result from exposure between 160 and 166 dB SPL. For the remaining active sonar bin types, the percentages are as follows: MF4 = 97 percent between 142 and 154 dB SPL and MF5 = 97 percent between 118 and 142 dB SPL. For mysticetes, exposure to explosives would result in comparatively smaller numbers of takes by Level B harassment by behavioral disturbance (0–11 per stock) and TTS takes (0–2 per stock). Based on this information, the majority of the takes by Level B harassment by behavioral disturbance would be expected to be of low to sometimes moderate severity and of a relatively shorter duration. Exposure to explosives would also result in two takes by Level A harassment by PTS of the Northeast Pacific stock of fin whale. No mortality or serious injury and no Level A harassment from non-auditory tissue damage from training activities is anticipated or proposed for authorization for any species or stock.

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 feeding or breeding grounds. Behavioral reactions may include alerting, breaking off feeding dives and surfacing, diving or swimming away, or no response at all (DOD, 2017; Nowacek, 2007; Richardson, 1995; Southall *et al.,* 2007). Overall, mysticetes have been observed to be more reactive to acoustic disturbance when a noise source is located directly on their migration route. Mysticetes disturbed while migrating could pause their migration or route around the disturbance, while males en route to breeding grounds have been shown to be less responsive to disturbances. Although some may pause temporarily, they would resume migration shortly after the exposure ends. Animals disturbed while engaged in other activities such as feeding or reproductive behaviors may be more likely to ignore or tolerate the disturbance and continue their natural behavior patterns. Alternately, adult females with calves may be more responsive to stressors.

As noted in the Potential Effects of Specified Activities on Marine Mammals and Their Habitat section, while there are multiple examples from behavioral response studies of odontocetes ceasing their feeding dives when exposed to sonar pulses at certain levels, blue whales were less likely to show a visible response to sonar exposures at certain levels when feeding than when traveling. However, Goldbogen *et al.* (2013) indicated some horizontal displacement of deep foraging blue whales in response to

simulated MFAS. Southall *et al.* (2019b) observed that after exposure to simulated and operational mid-frequency active sonar, more than 50 percent of blue whales in deep-diving states responded to the sonar, while no behavioral response was observed in shallow-feeding blue whales. Southall *et al.* (2019b) noted that the behavioral responses they observed were generally brief, of low to moderate severity, and highly dependent on exposure context (behavioral state, source-to-whale horizontal range, and prey availability).

Richardson *et al.* (1995) noted that avoidance (temporary displacement of an individual from an area) reactions are the most obvious manifestations of disturbance in marine mammals. Avoidance is qualitatively different from the startle or 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. Some mysticetes may avoid larger activities as they move through an area, although the Navy's activities do not typically use the same training locations day-after-day during multi-day activities, except periodically in instrumented ranges, which are not present in the GOA Study Area. Therefore, displaced animals could return quickly after even a large activity or MTE is completed.

At most, only one MTE would occur per year (over a maximum of 21 days), and additionally, MF1 mid-frequency active sonar would be prohibited from June 1 to September 30 within the North Pacific Right Whale Mitigation Area. Explosives detonated below 10,000 ft. altitude (including at the water surface) would be prohibited in the Continental Shelf and Slope Mitigation Area, including in the portion that overlaps the North Pacific Right Whale Mitigation Area. In the open waters of the Gulf of Alaska, the use of Navy sonar and other active acoustic sources is transient and would be unlikely to expose the same population of animals repeatedly over a short period of time, especially given the broader-scale movements of mysticetes and the 21-day duration of the activities.

The implementation of procedural mitigation and the sightability of mysticetes (due to their large size) would further reduce the potential for a significant behavioral reaction or a threshold shift to occur (*i.e.,* shutdowns are expected to be successfully implemented), which is reflected in the amount and type of incidental take that would be anticipated to occur and is proposed for authorization. Level B harassment by behavioral disturbance of mysticetes resulting from the TMAA activities would likely be short-term and of low to sometimes moderate severity, with no anticipated effect on reproduction or survival of any individuals.

As noted previously, when an animal incurs a threshold shift, it occurs in the frequency from that of the source up to one octave above. This means that the vast majority of threshold shifts caused by Navy sonar sources would typically occur in the range of 2–20 kHz (from the 1–10 kHz MF bin, though in a specific narrow band within this range as the sources are narrowband), and if resulting from hull-mounted sonar, would be in the range of 3.5–7 kHz. The majority of mysticete vocalizations occur in frequencies below 1 kHz, which means that TTS incurred by mysticetes would not interfere with conspecific communication. Additionally, many of the other critical sounds that serve as cues for navigation and prey (*e.g.,* waves, fish, invertebrates) occur below a few kHz, which means that detection of these signals would not be inhibited by most threshold shift either. When we look in ocean areas where the Navy has been intensively training and testing with sonar and other active acoustic sources for decades, there is no data suggesting any long-term consequences to reproduction or survival rates of mysticetes from exposure to sonar and other active acoustic sources.

All the mysticete species discussed in this section would benefit from the procedural mitigation measures described earlier in the Proposed Mitigation Measures section. Additionally, the Navy would issue awareness messages prior to the start of TMAA training activities to alert vessels and aircraft operating within the TMAA to the possible presence of concentrations of large whales, including mysticetes, especially when traversing on the continental shelf and slope where densities of these species may be higher. To maintain safety of navigation and to avoid interactions with marine mammals, the Navy would instruct vessels to remain vigilant to the presence of large whales that may be vulnerable to vessel strikes or potential impacts from training activities. Further, the Navy would limit activities and employ other measures in mitigation areas that would avoid or reduce impacts to mysticetes. Where these mitigation areas are expected to mitigate impacts to particular species or stocks (North Pacific right whale, humpback whale, gray whale), they are discussed in detail below. Below we compile and summarize the information that supports our preliminary determinations that the Navy's activities would not adversely affect any mysticete species or stock through effects on annual rates of recruitment or survival.

North Pacific Right Whale (Eastern North Pacific Stock)

North Pacific right whales are listed as endangered under the ESA, and this species is currently one of the most endangered whales in the world (Clapham, 2016; NMFS, 2013, 2017; Wade *et al.,* 2010). The current population trend is unknown. ESA-designated critical habitat for the North Pacific right whale is located in the western Gulf of Alaska off Kodiak Island and in the southeastern Bering Sea/Bristol Bay area (Muto *et al.,* 2017; Muto *et al.,* 2018b; Muto *et al.,* 2020a); there is no designated critical habitat for this species within the GOA Study Area. North Pacific right whales are anticipated to be present in the GOA Study Area year round, but are considered rare, with a potentially higher density between June and September. A BIA for feeding (June through September; Ferguson *et al.,* 2015b) overlaps with the TMAA portion of the GOA Study Area by approximately 2,051 km^2 (approximately 7 percent of the feeding BIA and 1.4 percent of the TMAA). This BIA does not overlap with any portion of the WMA. This proposed rule includes a North Pacific Right Whale Mitigation Area and Continental Shelf and Slope Mitigation Area, which both overlap with the portion of the North Pacific right whale feeding BIA that overlaps with the TMAA. From June 1 to September 30, Navy personnel will not use surface ship hull-mounted MF1 mid-frequency active sonar during training activities within the North Pacific Right Whale Mitigation Area. Further, Navy personnel will not detonate explosives below 10,000 ft altitude (including at the water surface) during training at all times in the Continental Shelf and Slope Mitigation Area (including in the portion that overlaps the North Pacific Right Whale Mitigation Area). These restrictions would reduce the severity of impacts to North Pacific right whales by reducing interference in feeding that could result in lost feeding opportunities or necessitate additional energy expenditure to find other good foraging opportunities.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), only 3 instances of take by level B harassment (2 TTS, and 1 behavioral disturbance) are estimated,

which equate to about 10 percent of the very small estimated abundance. Given this very small estimate, repeated exposures of individuals are not anticipated. Regarding the severity of individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with North Pacific right whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, North Pacific right whales are listed as endangered under the ESA, and the current population trend is unknown. Only three instances of take are estimated to occur (a small portion of the stock), and any individual North Pacific right whale is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or Level A harassment is anticipated or proposed to be authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Eastern North Pacific stock of North Pacific right whales.

Humpback Whale (California/Oregon/Washington Stock)

The California/Oregon/Washington (CA/OR/WA) stock of humpback whales includes individuals from three ESA DPSs: Central America (endangered), Mexico (threatened), and Hawaii (not listed). A small portion of ESA-designated critical habitat overlaps with the TMAA portion of the GOA Study Area (see Figure 4–1 of the Navy's rulemaking/LOA application). The ESA-designated critical habitat does not overlap with any portion of the WMA. No other BIAs are identified for this species in the GOA Study Area. The SAR identifies this stock as stable (having shown a long-term increase from 1990 and then leveling off between 2008 and 2014). Navy personnel will not use surface ship hull-mounted MF1 mid-frequency active sonar from June 1 to September 30 within the North Pacific Right Whale Mitigation Area, which overlaps 18 percent of the humpback whale critical habitat in the TMAA. Further, Navy personnel will not detonate explosives below 10,000 ft altitude (including at the water surface) during training at all times in the Continental Shelf and Slope Mitigation Area (including in the portion that overlaps the North Pacific Right Whale Mitigation Area), which fully overlaps the portion of the humpback whale critical habitat in the TMAA. These measures would reduce the severity of impacts to humpback whales by reducing interference in feeding that could result in lost feeding opportunities or necessitate additional energy expenditure to find other good opportunities.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take is 10 (8 TTS and 2 behavioral disturbance), which is less than 1 percent of the abundance. Given the very low number of anticipated instances of take, only a very small portion of individuals in the stock are likely impacted and repeated exposures of individuals are not anticipated. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with humpback whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, this population is stable (even though two of the three associated DPSs are listed as endangered or threatened under the ESA), only a very small portion of the stock is anticipated to be impacted, and any individual humpback whale is likely to be disturbed at a low-moderate level. No mortality or serious injury and no Level A harassment is anticipated or proposed to be authorized. This low magnitude and severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the CA/OR/WA stock of humpback whales.

Humpback Whale (Central North Pacific Stock)

The Central North Pacific stock of humpback whales consists of winter/spring humpback whale populations of the Hawaiian Islands which migrate primarily to foraging habitat in northern British Columbia/Southeast Alaska, the Gulf of Alaska, and the Bering Sea/Aleutian Islands. The population is increasing (Muto *et al.* 2020), the Hawaii DPS is not ESA-listed, and no BIAs have been identified for this species in the GOA Study Area. Navy personnel will not use surface ship hull-mounted MF1 mid-frequency active sonar from June 1 to September 30 within the North Pacific Right Whale Mitigation Area, which overlaps 18 percent of the humpback whale critical habitat within the TMAA. As noted above, the Hawaii DPS is not ESA-listed; however, this ESA-designated critical habitat still indicates the likely value of habitat in this area to non-listed humpback whales. Further, Navy personnel will not detonate explosives below 10,000 ft altitude (including at the water surface) during training at all times in the Continental Shelf and Slope Mitigation Area (including in the portion that overlaps the North Pacific Right Whale Mitigation Area), which fully overlaps the portion of the humpback whale critical habitat in the TMAA. These measures would reduce the severity of impacts to humpback whales by reducing interference in feeding that could result in lost feeding opportunities or necessitate additional energy expenditure to find other good opportunities.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated instances of take compared to the abundance is less than 1 percent. This information and the complicated far-ranging nature of the stock structure indicates that only a very small portion of the stock is likely impacted. While no BIAs have been identified in the GOA Study Area, highest densities in the nearby Kodiak Island feeding BIA (July to September) and Prince William Sound feeding BIA (September to December) overlap with much of the potential window for the Navy's exercise in the GOA Study Area (April to October). Given that some whales

may remain in the area surrounding these BIAs for some time to feed during the Navy's exercise, there may be a few repeated exposures of a few individuals, most likely on non-sequential days. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with humpback whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, this population is increasing and the associated DPS is not listed as endangered or threatened under the ESA. Only a very small portion of the stock is anticipated to be impacted and any individual humpback whale is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on individual reproduction or survival, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or Level A harassment is anticipated or proposed to be authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Central North Pacific stock of humpback whales.

Humpback Whale (Western North Pacific Stock)

The Western North Pacific stock of humpback whales includes individuals from the Western North Pacific DPS, which is ESA-listed as endangered. A relatively small portion of ESA-designated critical habitat overlaps with the TMAA (2,708 km^2 (1,046 mi^2) of critical habitat Unit 5, 5,991 km^2 (2,313 mi^2) of critical habitat Unit 8; see Figure 4–1 of the Navy's rulemaking/LOA application). The ESA-designated critical habitat does not overlap with any portion of the WMA. No other BIAs are identified for this species in the GOA Study Area. The current population trend for this stock is unknown. Navy personnel will not use surface ship hull-mounted MF1 mid-frequency active sonar from June 1 to September 30 within the North Pacific Right Whale Mitigation Area, which overlaps 18 percent of the humpback whale critical habitat within the TMAA. Further, Navy personnel will not detonate explosives below 10,000 ft altitude (including at the water surface) during training at all times in the Continental Shelf and Slope Mitigation Area (including in the portion that overlaps the North Pacific Right Whale Mitigation Area), which fully overlaps the portion of the humpback whale critical habitat in the TMAA. These measures would reduce the severity of impacts to humpback whales by reducing interference in feeding that could result in lost feeding opportunities or necessitate additional energy expenditure to find other good opportunities.

Regarding the magnitude of takes by Level B harassment (behavioral disturbance only), the number of estimated total instances of take is three, which is less than 1 percent of the abundance. Given the very low number of anticipated instances of take, only a very small portion of individuals in the stock are likely impacted and repeated exposures of individuals are not anticipated. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level).

Altogether, the status of this stock is unknown, only a very small portion of the stock is anticipated to be impacted (3 individuals), and any individual humpback whale is likely to be disturbed at a low-moderate level. No mortality, serious injury, Level A harassment, or TTS is anticipated or proposed to be authorized. This low magnitude and severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Western North Pacific stock of humpback whales.

Blue Whale (Central North Pacific Stock and Eastern North Pacific Stock)

Blue whales are listed as endangered under the ESA throughout their range, but there is no ESA designated critical habitat and no BIAs have been identified for this species in the GOA Study Area. The current population trend for the Central North Pacific stock is unknown, and the Eastern North Pacific stock is stable.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 2 percent for both the Central North Pacific stock, and the Eastern North Pacific stock. For the Central North Pacific stock, only 3 instances of take (TTS) are anticipated.

Given the range of both blue whale stocks, the absence of any known feeding or aggregation areas, and the very low number of anticipated instances of take of the Central North Pacific stock, this information indicates that only a small portion of individuals in the stock are likely impacted and repeated exposures of individuals are not anticipated. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level). Regarding the severity of TTS takes, we have explained that they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with blue whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, blue whales are listed as endangered under the ESA throughout their range, the current population trend for the Central North Pacific stock is unknown, and the Eastern North Pacific stock is stable. Only a small portion of the stocks are anticipated to be impacted, and any individual blue whale is likely to be disturbed at a low-moderate level. The low magnitude and severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality and no Level A harassment is anticipated or proposed for authorization. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Central North Pacific stock and the Eastern North Pacific stock of blue whales.

Fin Whale (Northeast Pacific Stock)

Fin whales are listed as endangered under the ESA throughout their range, but there is no ESA designated critical habitat and no BIAs have been identified for this species in the GOA Study Area. The SAR identifies this stock as increasing.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 39 percent (though, as noted in Table 41, the SAR reports the stock abundance assessment as provisional and notes that it is an underestimate for the entire stock because it is based on surveys which covered only a small portion of the stock's range, and therefore 39 percent is likely an overestimate). Given the large range of the stock and short duration of the Navy's activities in the GOA Study Area, this information suggests that notably fewer than half of the individuals of the stock would likely be impacted, and that most affected individuals would likely be disturbed on a few days within the 21-day exercise, with the days most likely being non-sequential. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with fin whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

For these same reasons (low level and frequency band), while a small permanent loss of hearing sensitivity (PTS) may include some degree of energetic costs for compensating or may mean some small loss of opportunities or detection capabilities, at the expected scale the estimated two takes by Level A harassment by PTS would be unlikely to impact behaviors, opportunities, or detection capabilities to a degree that would interfere with reproductive success or survival of those individuals. Thus, the two takes by Level A harassment by PTS would be unlikely to affect rates of recruitment and survival for the stock.

Altogether, fin whales are listed as endangered under the ESA, though this population is increasing. Only a small portion of the stock is anticipated to be impacted, and any individual fin whale is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or serious injury and no Level A harassment from non-auditory tissue damage is anticipated or proposed for authorization. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Northeast Pacific stock of fin whales.

Sei Whale (Eastern North Pacific Stock)

The population trend of this stock is unknown, however sei whales are listed as endangered under the ESA throughout their range. There is no ESA designated critical habitat and no BIAs have been identified for this species in the GOA Study Area.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 7 percent. This information and the rare occurrence of sei whales in the TMAA suggests that only a small portion of individuals in the stock would likely be impacted and repeated exposures of individuals would not be anticipated. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with sei whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, the status of the stock is unknown and the species is listed as endangered, only a small portion of the stock is anticipated to be impacted, and any individual sei whale is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on individual reproduction or survival, much less annual rates of recruitment or survival. No mortality and no Level A harassment is anticipated or proposed for authorization. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Eastern North Pacific stock of sei whales.

Minke Whale (Alaska Stock)

The status of this stock is unknown and the species is not listed under the ESA. No BIAs have been identified for this species in the GOA Study Area.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 13 percent for the Alaska stock (based on, to be conservative, the smallest available provisional estimate in the SAR, which is derived from surveys that cover only a portion of the stock's range). Given the range of the Alaska stock of minke whales, this information indicates that only a small portion of individuals in this stock are likely to be impacted and repeated exposures of individuals are not anticipated. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with minke whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, although the status of the stock is unknown, the species is not listed under the ESA as endangered or threatened, only a small portion of the stock is anticipated to be impacted, and any individual minke whale is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on individual reproduction or survival, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality, serious injury, or Level A harassment is anticipated or proposed to be

authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Alaska stock of minke whales.

Gray Whale (Eastern North Pacific Stock)

The Eastern North Pacific stock of gray whale is not ESA-listed, and the SAR indicates that the stock is increasing. The TMAA portion of the GOA Study Area overlaps with a gray whale migration corridor that has been identified as a BIA (November–January (outside of the potential training window), southbound; March–May, northbound; Ferguson *et al.,* 2015). The WMA portion of the GOA Study Area does not overlap with any known important areas for gray whales.

Regarding the magnitude of takes by Level B harassment (behavioral disturbance only), the number of estimated total instances of take is four, which is less than 1 percent of the abundance. Given the very low number of anticipated instances of take, only a very small portion of individuals in the stock are likely impacted and repeated exposures of individuals are not anticipated. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB with a small portion up to 184 dB (*i.e.,* of a moderate or sometimes lower level).

Altogether, while we have considered the impacts of the gray whale UME, this population of gray whales is not endangered or threatened under the ESA, and the stock is increasing. No mortality, Level A harassment, or TTS is anticipated or proposed to be authorized. Only a very small portion of the stock is anticipated to be impacted, and any individual gray whale is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on the reproduction or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Eastern North Pacific stock of gray whales.

Odontocetes

This section builds on the broader discussion above and brings together the discussion of the different types and amounts of take that different species and stocks would likely incur, the applicable mitigation, and the status of the species and stocks to support the negligible impact determinations for each species or stock. We have described (earlier in this section) the unlikelihood of any masking having effects that would impact the reproduction or survival of any of the individual marine mammals affected by the Navy's activities. We have also described above in the Potential Effects of Specified Activities on Marine Mammals and their Habitat section the unlikelihood of any habitat impacts having effects that would impact the reproduction or survival of any of the individual marine mammals affected by the Navy's activities. There is no predicted PTS from sonar or explosives for most odontocetes, with the exception of Dall's porpoise, which is discussed below. There is no anticipated M/SI or non-auditory tissue damage from sonar or explosives for any species. Here, we include information that applies to all of the odontocete species, which are then further divided and discussed in more detail in the following subsections: sperm whales; beaked whales; dolphins and small whales; and porpoises. These subsections include more specific information about the groups, as well as conclusions for each species or stock represented.

The majority of takes by harassment of odontocetes in the TMAA are caused by sources from the MFAS bin (which includes hull-mounted sonar) because they are high level, typically narrowband sources at a frequency (in the 1–10 kHz range) that overlaps a more sensitive portion (though not the most sensitive) of the MF hearing range and they are used in a large portion of exercises (see Table 1 and Table 3). For odontocetes other than beaked whales (for which these percentages are indicated separately in that section), most of the takes (95 percent) from the MF1 bin in the TMAA would result from received levels between 160 and 172 dB SPL. For the remaining active sonar bin types, the percentages are as follows: MF4 = 98 percent between 142 and 160 dB SPL and MF5 = 94 percent between 118 and 142 dB SPL. Based on this information, the majority of the takes by Level B harassment by behavioral disturbance are expected to be low to sometimes moderate in nature, but still of a generally shorter duration.

For all odontocetes, takes from explosives (Level B harassment by behavioral disturbance, TTS, or PTS) comprise a very small fraction (and low number) of those caused by exposure to active sonar. For the following odontocetes, zero takes from explosives are expected to occur: sperm whale, killer whale, Pacific white-sided dolphin, Baird's beaked whale, and Stejneger's beaked whale. For Level B harassment by behavioral disturbance from explosives, one take is anticipated for Cuvier's beaked whale and 38 takes are anticipated for Dall's porpoise. No TTS or PTS is expected to occur from explosives for any stocks except Dall's porpoise. Because of the lower TTS and PTS thresholds for HF odontocetes, the Alaska stock of Dall's porpoise is expected to have 229 takes by TTS and 45 takes by PTS from explosives.

Because the majority of harassment takes of odontocetes result from the sources in the MFAS bin, the vast majority of threshold shift would occur at a single frequency within the 1–10 kHz range and, therefore, the vast majority of threshold shift caused by Navy sonar sources would be at a single frequency within the range of 2–20 kHz. The frequency range within which any of the anticipated narrowband threshold shift would occur would fall directly within the range of most odontocete vocalizations (2–20 kHz) (though phocoenids generally communicate at higher frequencies (Soerensen *et al.,* 2018; Clausen *et al.* 2010), which would not be impacted by this threshold shift). For example, the most commonly used hull-mounted sonar has a frequency around 3.5 kHz, and any associated threshold shift would be expected to be at around 7 kHz. However, odontocete vocalizations typically span a much wider range than this, and alternately, threshold shift from active sonar will often be in a narrower band (reflecting the narrower band source that caused it), which means that TTS incurred by odontocetes would typically only interfere with communication within a portion of their hearing range (if it occurred during a time when communication with conspecifics was occurring) and, as discussed earlier, it would only be expected to be of a short duration and relatively small degree. Odontocete echolocation occurs predominantly at frequencies significantly higher than 20 kHz (though there may be some small overlap at the lower part of their echolocating range for some species), which means that there is little likelihood that threshold shift, either temporary or permanent, would interfere with feeding behaviors.

Many of the other critical sounds that serve as cues for navigation and prey (*e.g.,* waves, fish, invertebrates) occur below a few kHz, which means that detection of these signals will not be inhibited by most threshold shift either. The low number of takes by threshold shift that might be incurred by individuals exposed to explosives would likely be lower frequency (5 kHz or less) and spanning a wider frequency range, which could slightly lower an individual's sensitivity to navigational or prey cues, or a small portion of communication calls, for several minutes to hours (if temporary) or permanently. There is no reason to think that the vast majority of the individual odontocetes taken by TTS would incur TTS on more than one day, although a small number could incur TTS on a few days at most. Therefore, odontocetes are unlikely to incur impacts on reproduction or survival as a result of TTS. PTS takes from these sources are very low (0 for all species other than Dall's porpoise), and while spanning a wider frequency band, are still expected to be of a low degree (*i.e.,* low amount of hearing sensitivity loss) and unlikely to affect reproduction or survival.

The range of potential behavioral effects of sound exposure on marine mammals generally, and odontocetes specifically, has been discussed in detail previously. There are behavioral patterns that differentiate the likely impacts on odontocetes as compared to mysticetes however. First, odontocetes echolocate to find prey, which means that they actively send out sounds to detect their prey. While there are many strategies for hunting, one common pattern, especially for deeper diving species, is many repeated deep dives within a bout, and multiple bouts within a day, to find and catch prey. As discussed above, studies demonstrate that odontocetes may cease their foraging dives in response to sound exposure. If enough foraging interruptions occur over multiple sequential days, and the individual either does not take in the necessary food, or must exert significant effort to find necessary food elsewhere, energy budget deficits can occur that could potentially result in impacts to reproductive success, such as increased cow/calf intervals (the time between successive calving). However, the relatively low impact of the Navy's activities on odontocetes in the TMAA indicate this is not likely to occur. Second, while many mysticetes rely on seasonal migratory patterns that position them in a geographic location at a specific time of the year to take advantage of ephemeral large abundances of prey (*i.e.,* invertebrates or small fish, which they eat by the thousands), odontocetes forage more homogeneously on one fish or squid at a time. Therefore, if odontocetes are interrupted while feeding, it is often possible to find more prey relatively nearby.

All the odontocete species and stocks discussed in this section would benefit from the procedural mitigation measures described earlier in the Proposed Mitigation Measures section.

Sperm Whale (North Pacific Stock)

This section builds on the broader odontocete discussion above and brings together the discussion of the different types and amounts of take that sperm whales would likely incur, the applicable mitigation, and the status of the species/stock to support the preliminary negligible impact determination for the stock.

Sperm whales are listed as endangered under the ESA. No critical habitat has been designated for sperm whales under the ESA and no BIAs for sperm whales have been identified in the GOA Study Area. The stock's current population trend is unknown. The Navy would issue awareness messages prior to the start of TMAA training activities to alert Navy ships and aircraft operating within the TMAA to the possible presence of increased concentrations of large whales, including sperm whales. This measure would further reduce any possibility of ship strike of sperm whales.

In Table 42 below for sperm whales, we indicate the total annual numbers of take by Level A harassment and Level B harassment, and a number indicating the instances of total take as a percentage of abundance.

TABLE 42—ANNUAL ESTIMATED TAKES BY LEVEL B HARASSMENT AND LEVEL A HARASSMENT FOR SPERM WHALES IN THE TMAA AND NUMBER INDICATING THE INSTANCES OF TOTAL TAKE AS A PERCENTAGE OF SPECIES/STOCK ABUNDANCE

Species	Stock	Instances of indicated types of incidental take[1]			Total takes	Abundance (NMFS SARs)[2]	Instances of total take as percentage of abundance
		Level B harassment		Level A harassment			
		Behavioral disturbance	TTS (may also include disturbance)	PTS			
Sperm whale	North Pacific	107	5	0	112	[3] 345	32.5

[1] Estimated impacts are based on the maximum number of activities in a given year under the specified activity. Not all takes represent separate individuals, especially for disturbance.
[2] Presented in the 2021 draft SARs or most recent SAR.
[3] The SAR reports that this is an underestimate for the entire stock because it is based on surveys of a small portion of the stock's extensive range and it does not account for animals missed on the trackline or for females and juveniles in tropical and subtropical waters.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 33 percent. Given the range of this stock, this information indicates that fewer than half of the individuals in the stock are likely to be impacted, with those individuals disturbed on likely one, but not more than a few non-sequential days within the 21 days per year. Additionally, while interrupted feeding bouts are a known response and concern for odontocetes, we also know that there are often viable alternative habitat options in the relative vicinity. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB (*i.e.,* of a lower, to occasionally moderate, level and less likely to evoke a severe response). As discussed earlier in the Preliminary Analysis and Negligible Impact Determination section, we anticipate more severe effects from takes when animals are exposed to higher received levels or for longer durations. Occasional milder Level B harassment

by behavioral disturbance, as is expected here, is unlikely to cause long-term consequences for either individual animals or populations, even if some smaller subset of the takes are in the form of a longer (several hours or a day) and more moderate response. Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with sperm whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, sperm whales are listed as endangered under the ESA, and the current population trend is unknown. Fewer than half of the individuals of the stock are anticipated to be impacted, and any individual sperm whale is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on reproduction or survival for any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality, serious injury, or Level A harassment is anticipated or proposed to be authorized. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the North Pacific stock of sperm whales.

Beaked Whales

This section builds on the broader odontocete discussion above and brings together the discussion of the different types and amounts of take that different beaked whale species and stocks would likely incur, the applicable mitigation, and the status of the species and stocks to support the preliminary negligible impact determinations for each species or stock. For beaked whales, no mortality or Level A harassment is anticipated or proposed for authorization.

In Table 43 below for beaked whales, we indicate the total annual numbers of take by Level A harassment and Level B harassment, and a number indicating the instances of total take as a percentage of abundance.

TABLE 43—ANNUAL ESTIMATED TAKES BY LEVEL B HARASSMENT AND LEVEL A HARASSMENT FOR BEAKED WHALES IN THE TMAA AND NUMBER INDICATING THE INSTANCES OF TOTAL TAKE AS A PERCENTAGE OF SPECIES/STOCK ABUNDANCE

Species	Stock	Instances of indicated types of incidental take[1]			Total takes	Abundance (NMFS SARs)[2]	Instances of total take as percentage of abundance
		Level B harassment		Level A harassment			
		Behavioral disturbance	TTS (may also include disturbance)	PTS			
Baird's beaked whale	Alaska	106	0	0	106	NA	NA
Cuvier's beaked whale	Alaska	430	3	0	433	NA	NA
Stejneger's beaked whale	Alaska	467	15	0	482	NA	NA

[1] Estimated impacts are based on the maximum number of activities in a given year under the specified activity. Not all takes represent separate individuals, especially for disturbance.
[2] Reliable estimates of abundance for these stocks are currently unavailable.

This first paragraph provides specific information that is in lieu of the parallel information provided for odontocetes as a whole. The majority of takes by harassment of beaked whales in the TMAA would be caused by sources from the MFAS bin (which includes hull-mounted sonar) because they are high level narrowband sources that fall within the 1–10 kHz range, which overlap a more sensitive portion (though not the most sensitive) of the MF hearing range. Also, of the sources expected to result in take, they are used in a large portion of exercises (see Table 1 and Table 3). Most of the takes (98 percent) from the MF1 bin in the TMAA would result from received levels between 148 and 166 dB SPL. For the remaining active sonar bin types, the percentages are as follows: MF4 = 97 percent between 130 and 148 dB SPL and MF5 = 99 percent between 100 and 148 dB SPL. Given the levels they are exposed to and beaked whale sensitivity, some responses would be of a lower severity, but many would likely be considered moderate, but still of generally short duration.

Research has shown that beaked whales are especially sensitive to the presence of human activity (Pirotta *et al.,* 2012; Tyack *et al.,* 2011) and therefore have been assigned a lower harassment threshold, with lower received levels resulting in a higher percentage of individuals being harassed and a more distant distance cutoff (50 km for high source level, 25 km for moderate source level).

Beaked whales have been documented to exhibit avoidance of human activity or respond to vessel presence (Pirotta *et al.,* 2012). Beaked whales were observed to react negatively to survey vessels or low altitude aircraft by quick diving and other avoidance maneuvers, and none were observed to approach vessels (Wursig *et al.,* 1998). Available information suggests that beaked whales likely have enhanced sensitivity to sonar sound, given documented incidents of stranding in conjunction with specific circumstances of MFAS use, although few definitive causal relationships between MFAS use and strandings have been documented (see Potential Effects of Specified Activities on Marine Mammals and their Habitat section). NMFS neither anticipates nor proposes to authorize the mortality of beaked whales (or any other species or stocks) resulting from exposure to active sonar.

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 re: 1 μPa, or below (McCarthy *et al.,* 2011). For example, after being exposed to 1–2 kHz upsweep naval sonar signals at a received SPL of 107 dB re 1 μPa, Northern bottlenose whales began moving in an unusually straight course, made a near 180° turn away from the source, and performed the longest and deepest dive (94 min, 2339 m) recorded for this species (Miller *et al.,* 2015). Wensveen *et al.* (2019) also documented avoidance behaviors in Northern bottlenose whales exposed to 1–2 kHz tonal sonar signals with SPLs ranging between 117–126 dB re: 1 μPa, including interrupted diving behaviors, elevated swim speeds, directed movements away from the sound source, and cessation of acoustic signals throughout exposure periods. Acoustic monitoring during actual sonar exercises revealed some beaked whales continuing to forage at levels up to 157

dB re: 1 μPa (Tyack *et al.,* 2011). Stimpert *et al.* (2014) tagged a Baird's beaked whale, which was subsequently exposed to simulated MFAS. Changes in the animal's dive behavior and locomotion were observed when received level reached 127 dB re: 1 μPa. However, Manzano-Roth *et al.* (2013) found that for beaked whale dives that continued to occur during MFAS activity, differences from normal dive profiles and click rates were not detected with estimated received levels up to 137 dB re: 1 μPa while the animals were at depth during their dives. In research done at the Navy's fixed tracking range in the Bahamas, animals were observed to leave the immediate area of the anti-submarine warfare training exercise (avoiding the sonar acoustic footprint at a distance where the received level was ''around 140 dB SPL,'' according to Tyack *et al.* (2011)), but return within a few days after the event ended (Claridge and Durban, 2009; McCarthy *et al.,* 2011; Moretti *et al.,* 2009, 2010; Tyack *et al.,* 2010, 2011). Joyce *et al.* (2019) found that Blainville's beaked whales moved up to 68 km away from an Atlantic Undersea Test and Evaluation Center site and reduced time spent on deep dives after the onset of mid-frequency active sonar exposure; whales did not return to the site until 2–4 days after the exercises ended. Changes in acoustic activity have also been documented. For example, Blainville's beaked whales showed decreased group vocal periods after biannual multi-day Navy training activities (Henderson *et al.,* 2016). Tyack *et al.* (2011) reported that, in reaction to sonar playbacks, most beaked whales stopped echolocating, made long slow ascent to the surface, and moved away from the sound. A similar behavioral response study conducted in Southern California waters during the 2010–2011 field season found that Cuvier's beaked whales exposed to MFAS displayed behavior ranging from initial orientation changes to avoidance responses characterized by energetic fluking and swimming away from the source (DeRuiter *et al.,* 2013b). However, the authors did not detect similar responses to incidental exposure to distant naval sonar exercises at comparable received levels, indicating that context of the exposures (*e.g.,* source proximity, controlled source ramp-up) may have been a significant factor. The study itself found the results inconclusive and meriting further investigation. Falcone *et al.* (2017) however, documented that Cuvier's beaked whales had longer dives and surface durations after exposure to mid-frequency active sonar, with the longer surface intervals contributing to a longer interval between deep dives, a proxy for foraging disruption in this species. Cuvier's beaked whale responses suggested particular sensitivity to sound exposure consistent with results for Blainville's beaked whale.

Populations of beaked whales and other odontocetes on the Bahamas and other Navy fixed ranges that have been operating for decades appear to be stable. Behavioral reactions (avoidance of the area of Navy activity) seem most likely in cases where beaked whales are exposed to anti-submarine sonar within a few tens of kilometers, especially for prolonged periods (a few hours or more) since this is one of the most sensitive marine mammal groups to anthropogenic sound of any species or group studied to date and research indicates beaked whales will leave an area where anthropogenic sound is present (De Ruiter *et al.,* 2013; Manzano-Roth *et al.,* 2013; Moretti *et al.,* 2014; Tyack *et al.,* 2011). Research involving tagged Cuvier's beaked whales in the SOCAL Range Complex reported on by Falcone and Schorr (2012, 2014) indicates year-round prolonged use of the Navy's training and testing area by these beaked whales and has documented movements in excess of hundreds of kilometers by some of those animals. Given that some of these animals may routinely move hundreds of kilometers as part of their normal pattern, leaving an area where sonar or other anthropogenic sound is present may have little, if any, cost to such an animal. Photo identification studies in the SOCAL Range Complex, a Navy range that is utilized for training and testing, have identified approximately 100 Cuvier's beaked whale individuals with 40 percent having been seen in one or more prior years, with re-sightings up to 7 years apart (Falcone and Schorr, 2014). These results indicate long-term residency by individuals in an intensively used Navy training and testing area, which may also suggest a lack of long-term consequences as a result of exposure to Navy training and testing activities. More than 8 years of passive acoustic monitoring on the Navy's instrumented range west of San Clemente Island documented no significant changes in annual and monthly beaked whale echolocation clicks, with the exception of repeated fall declines likely driven by natural beaked whale life history functions (DiMarzio *et al.,* 2018). Finally, results from passive acoustic monitoring estimated that regional Cuvier's beaked whale densities were higher than indicated by NMFS' broad scale visual surveys for the United States West Coast (Hildebrand and McDonald, 2009).

Below we compile and summarize the information that supports our preliminary determinations that the Navy's activities would not adversely affect any of the beaked whale stocks through effects on annual rates of recruitment or survival. Baird's, Cuvier's, and Stejneger's beaked whales (Alaska stocks)

Baird's beaked whale, Cuvier's beaked whale, and Stejneger's beaked whale are not listed as endangered or threatened species under the ESA, and the 2019 Alaska SARs indicate that trend information is not available for any of the Alaska stocks. No BIAs for beaked whales have been identified in the GOA Study Area.

As indicated in Table 43, no abundance estimates are available for any of the stocks. However, the ranges of all three stocks are large compared to the GOA Study Area (Cuvier's is the smallest, occupying all of the Gulf of Alaska, south of the Canadian border and west along the Aleutian Islands. Baird's range even farther south and Baird's and Stejneger's also cross north over the Aleutian Islands).

Regarding abundance and distribution of these species in the vicinity of the TMAA, passive acoustic data indicate spatial overlap of all three beaked whales; however, detections are spatially offset, suggesting some level of habitat portioning in the Gulf of Alaska (Rice *et al.,* 2021). Peaks in detections by Rice *et al.* (2021) were also temporally offset, with detections of Baird's beaked whale clicks peaking in winter at the slope and in spring at the seamounts. Rice *et al.* (2021) indicates Baird's beaked whales were highest in number at Quinn seamount, which overlaps with the southern edge of the TMAA, and therefore, a portion of this habitat is outside of the TMAA. Baumann Pickering *et al.* (2012b) did not acoustically detect Baird's beaked whales from July-October in the northern Gulf of Alaska (overlapping with the majority of the Navy's potential training period), while acoustic detections from November-January suggest that Baird's beaked whales may winter in this area. Rice *et al.* (2021) reported the highest detections of Baird's beaked whales within the TMAA during the spring in the portion of the TMAA that is farther offshore, with lowest detections in the summer and an increase in detections on the continental slope in the winter, indicating that the whales are either not producing clicks in the summer or they

are migrating farther north or south to feed or mate during this time.

Data from a satellite-tagged Baird's beaked whale off Southern California recently documented movement north along the shelf-edge for more than 400 nmi over a six-and-a-half-day period (Schorr *et. al.,* Unpublished). If that example is reflective of more general behavior, Baird's beaked whales present in the TMAA may have much larger home ranges than the waters bounded by the TMAA, reducing the potential for repeated takes of individuals.

Regarding Stejneger's beaked whale, passive acoustic monitoring detected the whales most commonly at the slope and offshore in the TMAA (Rice *et al.,* 2021; Rice *et al.,* 2018b; Rice *et al.,* 2020b). At the slope, Stejneger's beaked whale detections peaked in fall (Rice *et al.,* 2021). Rice *et al.* (2021) notes that to date, there have been no documented sightings of Stejneger's beaked whales that were simultaneous with recording of vocalizations, which is necessary to confirm the vocalizations were produced by the species, and therefore, detections should be interpreted with caution. Baumann-Pickering *et al.* (2012b) recorded acoustic signals believed to be produced by Stejneger's beaked whales (based on frequency characteristics, interpulse interval, and geographic location; Baumann-Pickering *et al.,* 2012a) almost weekly from July 2011 to February 2012 in the northern Gulf of Alaska.

Regarding Cuvier's beaked whale, passive acoustic monitoring at five sites in the TMAA (Rice *et al.,* 2021; Rice *et al.,* 2015; Rice *et al.,* 2018b; Rice *et al.,* 2020a) has intermittently detected Cuvier's beaked whale vocalizations in low numbers in every month except April, although there are generally multiple months in any given year where no detections are made.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the anticipated takes would occur within a small portion of the stocks' ranges (including that none of the stocks are expected to occur in the far western edge of the TMAA; U.S. Department of the Navy, 2021) and would occur within the 21-day window of the annual activities. In consideration of these factors and the passive acoustic monitoring data described in this section, which indicates relatively low beaked whale presence in the TMAA during the Navy's potential training period, it is likely that a portion of the stocks would be taken, and a subset of them may be taken on a few days, with no indication that these days would be sequential.

Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 166 dB, though with beaked whales, which are considered somewhat more sensitive, this could mean that some individuals would leave preferred habitat for a day (*i.e.,* moderate level takes). However, while interrupted feeding bouts are a known response and concern for odontocetes, we also know that there are often viable alternative habitat options nearby. Regarding the severity of TTS takes (anticipated for Cuvier's and Stejneger's beaked whales only), they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with beaked whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival. As mentioned earlier in the odontocete overview, we anticipate more severe effects from takes when animals are exposed to higher received levels or sequential days of impacts.

Altogether, none of these species are ESA-listed, only a portion of the stocks are anticipated to be impacted, and any individual beaked whale is likely to be disturbed at a moderate or sometimes low level. This low magnitude and moderate to lower severity of harassment effects is not expected to result in impacts on individual reproduction or survival, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality, serious injury, or Level A harassment is anticipated or proposed for authorization. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Alaska stocks of beaked whales.

Dolphins and Small Whales

This section builds on the broader odontocete discussion above and brings together the discussion of the different types and amounts of take that different dolphin and small whale species and stocks would likely incur, the applicable mitigation, and the status of the species and stocks to support the preliminary negligible impact determinations for each species or stock. For all dolphin and small whale stocks discussed here, no mortality or Level A harassment is anticipated or proposed for authorization.

In Table 44 below for dolphins and small whales, we indicate the total annual numbers of take by Level A harassment and Level B harassment, and a number indicating the instances of total take as a percentage of abundance.

TABLE 44—ANNUAL ESTIMATED TAKES BY LEVEL B HARASSMENT AND LEVEL A HARASSMENT FOR DOLPHINS AND SMALL WHALES IN THE TMAA AND NUMBER INDICATING THE INSTANCES OF TOTAL TAKE AS A PERCENTAGE OF SPECIES/STOCK ABUNDANCE

Species	Stock	Instances of indicated types of incidental take [1]			Total takes	Abundance (NMFS SARs) [2]	Instances of total take as percentage of abundance
		Level B harassment		Level A harassment			
		Behavioral disturbance	TTS (may also include disturbance)	PTS			
Killer whale	Eastern North Pacific Offshore.	64	17	0	81	300	27.0
	Eastern North Pacific Gulf of Alaska, Aleutian Islands, and Bering Sea Transient.	119	24	0	143	587	24.4
Pacific white-sided dolphins	North Pacific	1,102	472	0	1,574	26,880	5.9

[1] Estimated impacts are based on the maximum number of activities in a given year under the specified activity. Not all takes represent separate individuals, especially for disturbance.

[2] Presented in the 2021 draft SARs or most recent SAR.

As described above, the large majority of Level B harassment by behavioral disturbance to odontocetes, and thereby dolphins and small whales, from hull-mounted sonar (MFAS) in the TMAA would result from received levels between 160 and 172 dB SPL. Therefore, the majority of takes by Level B harassment are expected to be in the form of low to occasionally moderate responses of a generally shorter duration. As mentioned earlier in this section, we anticipate more severe effects from takes when animals are exposed to higher received levels or for longer durations. Occasional milder occurrences of Level B harassment by behavioral disturbance are unlikely to cause long-term consequences for individual animals, much less have any effect on annual rates of recruitment or survival. No mortality, serious injury, or Level A harassment is expected or proposed for authorization.

Research and observations show that if delphinids 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. Delphinids may not react at all until the sound source is approaching within a few hundred meters to within a few kilometers depending on the environmental conditions and species. Some dolphin species (the more surface-dwelling taxa—typically those with ''dolphin'' in the common name, such as bottlenose dolphins, spotted dolphins, spinner dolphins, rough-toothed dolphins, *etc.,* but not Risso's dolphin), especially those residing in more industrialized or busy areas, have demonstrated more tolerance for disturbance and loud sounds and many of these species are known to approach vessels to bow-ride. These species are often considered generally less sensitive to disturbance. Dolphins and small whales that reside in deeper waters and generally have fewer interactions with human activities are more likely to demonstrate more typical avoidance reactions and foraging interruptions as described above in the odontocete overview.

Below we compile and summarize the information that supports our preliminary determinations that the Navy's activities would not adversely affect any of the dolphins and small whales through effects on annual rates of recruitment or survival.

Killer Whales (Eastern North Pacific Offshore; Eastern North Pacific Gulf of Alaska, Aleutian Islands, and Bering Sea Transient)

No killer whale stocks in the TMAA are listed as DPSs under the ESA, and no BIAs for killer whales have been identified in the GOA Study Area. The Eastern North Pacific Offshore stock is reported as ''stable,'' and the population trend of the Eastern North Pacific Gulf of Alaska, Aleutian Islands, and Bering Sea Transient stock is unknown.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 27 percent for the Eastern North Pacific Offshore stock and 24 percent for the Eastern North Pacific Gulf of Alaska, Aleutian Islands, and Bering Sea Transient stock. This information indicates that only a portion of each stock is likely impacted, with those individuals disturbed on likely one, but not more than a few non-sequential days within the 21 days per year. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB (*i.e.,* of a lower, to occasionally moderate, level and less likely to evoke a severe response). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with killer whale communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, these killer whale stocks are not listed under the ESA. The Eastern North Pacific Offshore stock is reported as ''stable,'' and the population trend of the Eastern North Pacific Gulf of Alaska, Aleutian Islands, and Bering Sea Transient stock is unknown. Only a portion of these killer whale stocks is anticipated to be impacted, and any individual is likely to be disturbed at a low-moderate level, with the taken individuals likely exposed on one day but not more than a few non-sequential days within a year. This low magnitude and severity of harassment effects is unlikely to result in impacts on individual reproduction or survival, let alone have impacts on annual rates of recruitment or survival of either of the stocks. No mortality or Level A harassment is anticipated or proposed for authorization for either of the stocks. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on these killer whale stocks.

Pacific White-Sided Dolphins (North Pacific Stock)

Pacific white-sided dolphins are not listed under the ESA and the current population trend of the North Pacific stock is unknown. No BIAs for this stock have been identified in the GOA Study Area.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 6 percent. Given the number of takes, only a small portion of the stock is likely impacted, and individuals are likely disturbed between one and a few days, most likely non-sequential, within a year. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB (*i.e.,* of a lower, to occasionally moderate, level and less likely to evoke a severe response). However, while interrupted feeding bouts are a known response and concern for odontocetes, we also know that there are often viable alternative habitat options nearby. Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with dolphin communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

Altogether, though the status of this stock is unknown, this stock is not listed under the ESA. Any individual is likely to be disturbed at a low-moderate level, and those individuals likely disturbed on one to a few non-sequential days within a year. This low magnitude and severity of harassment effects is not expected to result in impacts on individual reproduction or survival, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality, serious injury, or Level A harassment is anticipated or proposed for authorization. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the

proposed authorized take would have a negligible impact on the North Pacific stock of Pacific white-sided dolphins.

Dall's Porpoise (Alaska Stock)

This section builds on the broader odontocete discussion above and brings together the discussion of the different types and amounts of take that this porpoise stock would likely incur, the applicable mitigation, and the status of the stock to support the negligible impact determination.

In Table 45 below for Dall's porpoise, we indicate the total annual numbers of take by Level A harassment and Level B harassment, and a number indicating the instances of total take as a percentage of abundance.

TABLE 45—ANNUAL ESTIMATED TAKES BY LEVEL B HARASSMENT AND LEVEL A HARASSMENT FOR DALL'S PORPOISE IN THE TMAA AND NUMBER INDICATING THE INSTANCES OF TOTAL TAKE AS A PERCENTAGE OF SPECIES/STOCK ABUNDANCE

Species	Stock	Instances of indicated types of incidental take [1]			Total takes	Abundance (NMFS SARs) [2]	Instances of total take as percentage of abundance
		Level B harassment		Level A harassment			
		Behavioral disturbance	TTS (may also include disturbance)	PTS			
Dall's porpoise	Alaska	348	8,939	64	9,351	83,400	11.2

[1] Estimated impacts are based on the maximum number of activities in a given year under the Specified Activity. Not all takes represent separate individuals, especially for disturbance.
[2] Presented in the 2021 draft SARs or most recent SAR.

Dall's porpoise is not listed under the ESA and the current population trend for the Alaska stock is unknown. No BIAs for Dall's porpoise have been identified in the GOA Study Area.

While harbor porpoises have been observed to be especially sensitive to human activity, the same types of responses have not been observed in Dall's porpoises. Dall's porpoises are typically notably longer than, and weigh more than twice as much as, harbor porpoises, making them generally less likely to be preyed upon and likely differentiating their behavioral repertoire somewhat from harbor porpoises. Further, they are typically seen in large groups and feeding aggregations, or exhibiting bow-riding behaviors, which is very different from the group dynamics observed in the more typically solitary, cryptic harbor porpoises, which are not often seen bow-riding. For these reasons, Dall's porpoises are not treated as an especially sensitive species (versus harbor porpoises which have a lower behavioral harassment threshold and more distant cutoff) but, rather, are analyzed similarly to other odontocetes (with takes from the sonar bin in the TMAA resulting from the same received levels reported in the *Odontocete* section above). Therefore, the majority of Level B harassment by behavioral disturbance is expected to be in the form of milder responses compared to higher level exposures. As mentioned earlier in this section, we anticipate more severe effects from takes when animals are exposed to higher received levels.

We note that Dall's porpoise, as a HF-sensitive species, has a lower PTS threshold than other groups and therefore is generally more likely to experience TTS and PTS, and potentially occasionally to a greater degree, and NMFS accordingly has evaluated and authorized higher numbers. Also, however, regarding PTS from sonar exposure, porpoises are still likely to avoid sound levels that would cause higher levels of TTS (greater than 20 dB) or PTS. Therefore, even though the number of TTS takes are higher than for other odontocetes, any PTS is expected to be at a lower to occasionally moderate level and for all of the reasons described above, TTS and PTS takes are not expected to impact reproduction or survival of any individual.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance), the number of estimated total instances of take compared to the abundance is 11 percent. This indicates that only a small portion of this stock is likely to be impacted, and a subset of those individuals would likely be taken on no more than a few non-sequential days within a year. Regarding the severity of those individual takes by Level B harassment by behavioral disturbance, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 172 dB (*i.e.,* of a lower, to occasionally moderate, level and less likely to evoke a severe response). Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival.

For the same reasons explained above for TTS (low to occasionally moderate level and the likely frequency band), while a small permanent loss of hearing sensitivity may include some degree of energetic costs for compensating or may mean some small loss of opportunities or detection capabilities, the estimated annual takes by Level A harassment by PTS for this stock (64 takes) would be unlikely to impact behaviors, opportunities, or detection capabilities to a degree that would interfere with reproductive success or survival of any individuals.

Altogether, the status of the Alaska stock of Dall's porpoise is unknown, however Dall's porpoise are not listed as endangered or threatened under the ESA. Only a small portion of this stock is likely to be impacted, any individual is likely to be disturbed at a low-moderate level, and a subset of taken individuals would likely be taken on a few non-sequential days within a year. This low magnitude and severity of Level B harassment effects is not expected to result in impacts on individual reproduction or survival, much less annual rates of recruitment or survival. Some individuals (64 annually) could be taken by PTS of likely low to occasionally moderate severity. A small permanent loss of hearing sensitivity (PTS) may include some degree of energetic costs for compensating or may mean some small loss of opportunities or detection capabilities, but at the expected scale the estimated takes by Level A harassment by PTS for this stock would be unlikely, alone or in combination with the Level B harassment take by behavioral disturbance and TTS, to impact behaviors, opportunities, or detection capabilities to a degree that

would interfere with reproductive success or survival of any individuals, let alone have impacts on annual rates of recruitment or survival of this stock. No mortality or serious injury and no Level A harassment from non-auditory tissue damage is anticipated or proposed for authorization. For these reasons, we have preliminarily determined, in consideration of all of the effects of the Navy's activities combined, that the proposed authorized take would have a negligible impact on the Alaska stock of Dall's porpoise.

Pinnipeds

This section builds on the broader discussion above and brings together the discussion of the different types and amounts of take that different species and stocks would likely incur, the applicable mitigation, and the status of the species and stocks to support the negligible impact determinations for each species or stock. We have described (earlier in this section) the unlikelihood of any masking having effects that would impact the reproduction or survival of any of the individual marine mammals affected by the Navy's activities. We have also described above in the Potential Effects of Specified Activities on Marine Mammals and their Habitat section the unlikelihood of any habitat impacts having effects that would impact the reproduction or survival of any of the individual marine mammals affected by the Navy's activities. For pinnipeds, there is no mortality or serious injury and no Level A harassment from non-auditory tissue damage from sonar or explosives anticipated or proposed to be authorized for any species.

Regarding behavioral disturbance, research and observations show that pinnipeds in the water may be tolerant of anthropogenic noise and activity (a review of behavioral reactions by pinnipeds to impulsive and non-impulsive noise can be found in Richardson *et al.* (1995) and Southall *et al.* (2007)). Available data, though limited, suggest that exposures between approximately 90 and 140 dB SPL do not appear to induce strong behavioral responses in pinnipeds exposed to non-pulse sounds in water (Costa *et al.,* 2003; Jacobs and Terhune, 2002; Kastelein *et al.,* 2006c). Based on the limited data on pinnipeds in the water exposed to multiple pulses (small explosives, impact pile driving, and seismic sources), exposures in the approximately 150 to 180 dB SPL range generally have limited potential to induce avoidance behavior in pinnipeds (Blackwell *et al.,* 2004; Harris *et al.,* 2001; Miller *et al.,* 2004). If pinnipeds 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. Pinnipeds 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. Effects on pinnipeds that are taken by Level B harassment in the TMAA, on the basis of reports in the literature as well as Navy monitoring from past activities, would likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring). Most likely, individuals would simply move away from the sound source and be temporarily displaced from those areas, or not respond at all, which would have no effect on reproduction or survival. While some animals may not return to an area, or may begin using an area differently due to training activities, most animals are expected to return to their usual locations and behavior. Given their documented tolerance of anthropogenic sound (Richardson *et al.,* 1995 and Southall *et al.,* 2007), repeated exposures of individuals of any of these species to levels of sound that may cause Level B harassment are unlikely to result in hearing impairment or to significantly disrupt foraging behavior. Thus, even repeated Level B harassment of some small subset of individuals of an overall stock is unlikely to result in any significant realized decrease in fitness to those individuals that would result in any adverse impact on rates of recruitment or survival for the stock as a whole.

While no take of Steller sea lion is anticipated or proposed to be authorized, we note that the GOA Study Area boundary was intentionally designed to avoid ESA-designated Steller sea lion critical habitat.

All the pinniped species discussed in this section would benefit from the procedural mitigation measures described earlier in the Proposed Mitigation Measures section.

In Table 46 below for pinnipeds, we indicate the total annual numbers of take by Level A harassment and Level B harassment, and a number indicating the instances of total take as a percentage of abundance.

TABLE 46—ANNUAL ESTIMATED TAKES BY LEVEL B HARASSMENT AND LEVEL A HARASSMENT FOR PINNIPEDS IN THE TMAA AND NUMBER INDICATING THE INSTANCES OF TOTAL TAKE AS A PERCENTAGE OF SPECIES/STOCK ABUNDANCE

Species	Stock	Instances of indicated types of incidental take [1]			Total Takes	Abundance (NMFS SARs) [2]	Instances of total take as percentage of abundance
		Level B harassment		Level A harassment			
		Behavioral disturbance	TTS (may also include disturbance)	PTS			
Northern fur seal	Eastern Pacific	2,972	31	0	3,003	626,618	<1
Northern fur seal	California	60	1	0	61	14,050	<1
Northern elephant seal	California	904	1,643	8	2,555	187,386	1.3

[1] Estimated impacts are based on the maximum number of activities in a given year under the specified activity. Not all takes represent separate individuals, especially for disturbance.
[2] Presented in the 2021 draft SARs or most recent SAR.

The majority of takes by harassment of pinnipeds in the TMAA are caused by sources from the MFAS bin (which includes hull-mounted sonar) because they are high level sources at a frequency (1–10 kHz) which overlaps the most sensitive portion of the pinniped hearing range, and of the sources expected to result in take, they are used in a large portion of exercises (see Table 1 and Table 3). Most of the takes (>99 percent) from the MF1 bin in the TMAA would result from received levels between 166 and 178 dB SPL. For the remaining active sonar bin types, the percentages are as follows: MF4 = 97 percent between 148 and 172 dB SPL and MF5 = 99 percent between 130 and

160 dB SPL. Given the levels they are exposed to and pinniped sensitivity, most responses would be of a lower severity, with only occasional responses likely to be considered moderate, but still of generally short duration.

As mentioned earlier in this section, we anticipate more severe effects from takes when animals are exposed to higher received levels. Occasional milder takes by Level B harassment by behavioral disturbance are unlikely to cause long-term consequences for individual animals or populations, especially when they are not expected to be repeated over sequential multiple days. For all pinnipeds except Northern elephant seals, no take is expected to occur from explosives. For Northern elephant seals, harassment takes from explosives (behavioral disturbance, TTS, and PTS) comprise a very small fraction of those caused by exposure to active sonar.

Because the majority of harassment takes of pinnipeds result from narrowband sources in the range of 1–10 kHz, the vast majority of threshold shift caused by Navy sonar sources would typically occur in the range of 2–20 kHz. This frequency range falls within the range of pinniped hearing, however, pinniped vocalizations typically span a somewhat lower range than this (<0.2 to 10 kHz) and threshold shift from active sonar would often be in a narrower band (reflecting the narrower band source that caused it), which means that TTS incurred by pinnipeds would typically only interfere with communication within a portion of a pinniped's range (if it occurred during a time when communication with conspecifics was occurring). As discussed earlier, it would only be expected to be of a short duration and relatively small degree. Many of the other critical sounds that serve as cues for navigation and prey (*e.g.,* waves, fish, invertebrates) occur below a few kHz, which means that detection of these signals would not be inhibited by most threshold shifts either. The very low number of takes by threshold shifts that might be incurred by individuals exposed to explosives would likely be lower frequency (5 kHz or less) and spanning a wider frequency range, which could slightly lower an individual's sensitivity to navigational or prey cues, or a small portion of communication calls, for several minutes to hours (if temporary) or permanently.

Neither of these species are ESA-listed and the SAR indicates that the status of the Eastern Pacific stock of Northern fur seal is stable, the California stock of Northern fur seal is increasing, and the California stock of Northern elephant seal is increasing. BIAs have not been identified for pinnipeds.

Regarding the magnitude of takes by Level B harassment (TTS and behavioral disturbance) for the Eastern Pacific and California stocks of Northern fur seals, the estimated instances of takes as compared to the stock abundance is <1 percent for each stock. For the California stock of Northern elephant seal, the number of estimated total instances of take compared to the abundance is 1 percent. This information indicates that only a very small portion of individuals in these stocks are likely impacted, particularly given the large ranges of the stocks. Impacted individuals would be disturbed on likely one, but not more than a few non-sequential days within a year.

Regarding the severity of those individual takes by Level B harassment by behavioral disturbance for all pinniped stocks, we have explained that the duration of any exposure is expected to be between minutes and hours (*i.e.,* relatively short) and the received sound levels largely below 178 dB, which is considered a relatively low to occasionally moderate level for pinnipeds.

Regarding the severity of TTS takes, they are expected to be low-level, of short duration, and mostly not in a frequency band that would be expected to interfere with pinniped communication or other important low-frequency cues. Therefore, the associated lost opportunities and capabilities are not at a level that would impact reproduction or survival. For these same reasons (low level and frequency band), while a small permanent loss of hearing sensitivity may include some degree of energetic costs for compensating or may mean some small loss of opportunities or detection capabilities, the 8 estimated Level A harassment takes by PTS for the California stock of Northern elephant seal would be unlikely to impact behaviors, opportunities, or detection capabilities to a degree that would interfere with reproductive success or survival of any individuals.

Altogether, none of these species are listed under the ESA, and the SARs indicate that the status of the Eastern Pacific stock of Northern fur seal is stable, the California stock of Northern fur seal is increasing, and the California stock of Northern elephant seal is increasing. No mortality or serious injury and no Level A harassment from non-auditory tissue damage for pinnipeds is anticipated or proposed for authorization. Level A harassment by PTS is only anticipated for the California stock of Northern elephant seal (8 takes by Level A harassment). For all three pinniped stocks, only a small portion of the stocks are anticipated to be impacted and any individual is likely to be disturbed at a low-moderate level. This low magnitude and severity of harassment effects is not expected to result in impacts on individual reproduction or survival, let alone have impacts on annual rates of recruitment or survival of these stocks. For these reasons, in consideration of all of the effects of the Navy's activities combined, we have preliminarily determined that the proposed authorized take would have a negligible impact on all three stocks of pinnipeds.

Preliminary Determination

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from the specified activities will have a negligible impact on all affected marine mammal species or stocks.

Subsistence Harvest of Marine Mammals

In order to issue an incidental take authorization, NMFS must find that the specified activity will not have an ''unmitigable adverse impact'' on the subsistence uses of the affected marine mammal species or stocks by Alaska Natives. NMFS has defined ''unmitigable adverse impact'' in 50 CFR 216.103 as an impact resulting from the specified activity: (1) That is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by: (i) Causing the marine mammals to abandon or avoid hunting areas; (ii) Directly displacing subsistence users; or (iii) Placing physical barriers between the marine mammals and the subsistence hunters; and (2) That cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.

When applicable, NMFS must prescribe means of effecting the least practicable adverse impact on the availability of the species or stocks for subsistence uses. As discussed in the Proposed Mitigation Measures section, evaluation of potential mitigation measures includes consideration of two primary factors: (1) The manner in which, and the degree to which, implementation of the potential measure(s) is expected to reduce

adverse impacts on the availability of species or stocks for subsistence uses, and (2) the practicability of the measure(s) for applicant implementation.

The Navy has met with and will continue to engage in meaningful consultation and communication with several federally recognized Alaska Native tribes that have traditional marine mammal harvest areas in the GOA (though, as noted below, these areas do not overlap directly with the GOA Study Area). Further, the Navy will continue to keep the Tribes informed of the timeframes of future joint training exercises.

To our knowledge, subsistence hunting of marine mammals does not occur in the GOA Study Area where training activities would occur. The GOA Study Area is located over 12 nmi from shore with the nearest inhabited land being the Kenai Peninsula (24 nmi from the GOA Study Area). Information provided by Tribes in previous conversations with the Navy, and according to Alaska Department of Fish and Game (1995), indicates that harvest of pinnipeds occurs nearshore, and the Tribes do not use the GOA Study Area for subsistence hunting of marine mammals. The TMAA portion of the GOA Study Area is the closest to the area of nearshore subsistence harvest conducted by the Sun'aq Tribe of Kodiak, the Native Village of Eyak, and the Yakutat Tlingit Tribe (Alaska Department of Fish and Game, 1995). The WMA is offshore of subsistence harvest areas that occur in Unalaska, Akutan, False Pass, Sand Point, and King Cove (Alaska Department of Fish and Game, 1997). The Tribes listed here harvest harbor seals and sea lions (Alaska Department of Fish and Game, 1995, 1997).

In addition to the distance between subsistence hunting areas and the GOA Study Area, which would ensure that the Navy's activities do not displace subsistence users or place physical barriers between the marine mammals and the subsistence hunters, there is no reason to believe that any behavioral disturbance or limited TTS or PTS of pinnipeds that occurs offshore in the GOA Study Area would affect their subsequent behavior in a manner that would interfere with subsistence uses should those pinnipeds later interact with hunters, particularly given that neither harbor seals, Steller sea lions, or California sea lions are expected to be taken by the Navy's training activities. The specified activity would be a continuation of the types of training activities that have been ongoing for more than a decade, and as discussed in the 2011 GOA FEIS/OEIS and 2016 GOA FSEIS/OEIS, no impacts on traditional subsistence practices or resources are predicted to result from the specified activity.

Based on the information above, NMFS has preliminarily determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of the species or stocks for taking for subsistence purposes. However, we have limited information on marine mammal subsistence use in the GOA Study Area and seek additional information pertinent to making the final determination.

Classification

Endangered Species Act

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 GOA Study Area: North Pacific right whale, humpback whale (Mexico, Western North Pacific, and Central America DPSs), blue whale, fin whale, sei whale, gray whale (Western North Pacific stock), sperm whale, and Steller sea lion (Western DPS). The humpback whale has critical habitat recently designated under the ESA in the TMAA portion of the GOA Study Area (86 FR 21082; April 21, 2021). As discussed previously, the GOA Study Area boundaries were intentionally designed to avoid ESA-designated critical habitat for Steller sea lions.

The Navy will consult with NMFS pursuant to section 7 of the ESA for GOA Study Area activities. NMFS will also consult internally on the issuance of the regulations and an LOA under section 101(a)(5)(A) of the MMPA.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must evaluate our proposed actions and alternatives with respect to potential impacts on the human environment. Accordingly, NMFS plans to adopt the GOA SEIS/OEIS for the GOA Study Area provided our independent evaluation of the document finds that it includes adequate information analyzing the effects on the human environment of issuing regulations and an LOA under the MMPA. NMFS is a cooperating agency on the 2020 GOA DSEIS/OEIS and 2022 Supplement to the 2020 GOA DSEIS/OEIS and has worked extensively with the Navy in developing the documents. The 2020 GOA DSEIS/OEIS and 2022 Supplement to the 2020 GOA DSEIS/OEIS were made available for public comment in February 2020 and March 2022, respectively, at *https://www.goaeis.com/,* which also provides additional information about the NEPA process. We will review all comments prior to concluding our NEPA process and making a final decision on the MMPA rulemaking and request for a LOA.

Regulatory Flexibility Act

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 LOA 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 that 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: July 28, 2022.

Samuel D. Rauch, III,

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 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.,* unless otherwise noted.

■ 2. Revise subpart P to read as follows:

Subpart P—Taking and Importing Marine Mammals; U.S. Navy Training Activities in the Gulf of Alaska Study Area

Sec.

218.150 Specified activity and geographical region.
218.151 Effective dates.
218.152 Permissible methods of taking.
218.153 Prohibitions.
218.154 Mitigation requirements.
218.155 Requirements for monitoring and reporting.
218.156 Letters of Authorization.
218.157 Renewals and modifications of Letter of Authorization.
218.158 [Reserved]

§ 218.150 Specified activity and geographical region.

(a) Regulations in this subpart apply only to the U.S. Navy (Navy) for the taking of marine mammals that occurs in the area described in paragraph (b) of this section and that occurs incidental to the activities listed in paragraph (c) of this section.

(b) The GOA Study Area is entirely at sea and is comprised of three areas: a Temporary Maritime Activities Area (TMAA) a warning area, and the Western Maneuver Area (WMA) located south and west of the TMAA. The TMAA and WMA are temporary areas established within the GOA for ships, submarines, and aircraft to conduct training activities. The TMAA is a polygon roughly resembling a rectangle oriented from northwest to southeast, approximately 300 nautical miles (nmi; 556 km) in length by 150 nmi (278 km) in width, located south of Montague Island and east of Kodiak Island. The warning area overlaps and extends slightly beyond the northern corner of the TMAA. The WMA provides an additional 185,806 nmi^2 of surface, sub-surface, and airspace training area to support activities occurring within the TMAA. The boundary of the WMA follows the bottom of the slope at the 4,000 m contour line.

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the Navy conducting training activities, including:

(1) Anti-submarine warfare; and

(2) Surface warfare.

§ 218.151 Effective dates.

Regulations in this subpart are effective from December 15, 2022 through December 14, 2029.

§ 218.152 Permissible methods of taking.

(a) Under a Letter of Authorization (LOA) issued pursuant to § 216.106 of this chapter and § 218.156, the Holder of the LOA (hereinafter ''Navy'') may incidentally, but not intentionally, take marine mammals within the TMAA only, as described in § 218.150(b), by Level A harassment and Level B harassment associated with the use of active sonar and other acoustic sources and explosives, provided the activity is in compliance with all terms, conditions, and requirements of this subpart and the applicable LOA.

(b) The incidental take of marine mammals by the activities listed in § 218.150(c) is limited to the following species:

TABLE 1 TO § 218.152(b)

Species	Stock
Blue whale	Central North Pacific.
Blue whale	Eastern North Pacific.
Fin whale	Northeast Pacific.
Humpback whale	Western North Pacific.
Humpback whale	Central North Pacific.
Humpback whale	California/Oregon/Washington.
Minke whale	Alaska.
North Pacific right whale	Eastern North Pacific.
Sei whale	Eastern North Pacific.
Gray whale	Eastern North Pacific.
Killer whale	Eastern North Pacific Offshore.
Killer whale	Eastern North Pacific Gulf of Alaska, Aleutian Islands, and Bering Sea Transient.
Pacific white-sided dolphin	North Pacific.
Dall's porpoise	Alaska.
Sperm whale	North Pacific.
Baird's beaked whale	Alaska.
Cuvier's beaked whale	Alaska.
Stejneger's beaked whale	Alaska.
Northern fur seal	Eastern Pacific.
Northern fur seal	California.
Northern elephant seal	California.

§ 218.153 Prohibitions.

(a) Except for incidental takings contemplated in § 218.152(a) and authorized by an LOA issued under §§ 216.106 of this chapter and 218.156, it shall be unlawful for any person to do any of the following in connection with the activities listed in § 218.150(c):

(1) Violate, or fail to comply with, the terms, conditions, and requirements of this subpart or an LOA issued under §§ 216.106 of this chapter and 218.156;

(2) Take any marine mammal not specified in § 218.152(b);

(3) Take any marine mammal specified in § 218.152(b) in any manner other than as specified in the LOA; or

(4) Take a marine mammal specified in § 218.152(b) if NMFS determines such taking results in more than a negligible impact on the species or stocks of such marine mammal.

(b) [Reserved]

§ 218.154 Mitigation requirements.

(a) When conducting the activities identified in § 218.150(c), the mitigation measures contained in any LOA issued under §§ 216.106 of this chapter and 218.156 must be implemented. These mitigation measures include, but are not limited to:

(1) *Procedural mitigation.* Procedural mitigation is mitigation that the Navy must implement whenever and wherever an applicable training activity takes place within the GOA Study Area for acoustic stressors (*i.e.,* active sonar, weapons firing noise), explosive stressors (*i.e.,* large-caliber projectiles, bombs), and physical disturbance and strike stressors (*i.e.,* vessel movement, towed in-water devices, small-, medium-, and large-caliber non-explosive practice munitions, non-explosive bombs).

(i) *Environmental awareness and education.* Appropriate Navy personnel (including civilian personnel) involved in mitigation and training activity reporting under the specified activities will complete the environmental compliance training modules identified in their career path training plan, as specified in the LOA.

(ii) *Active sonar.* Active sonar includes mid-frequency active sonar, and high-frequency active sonar. For vessel-based active sonar activities, mitigation applies only to sources that are positively controlled and deployed from manned surface vessels (*e.g.,* sonar sources towed from manned surface platforms). For aircraft-based active sonar activities, mitigation applies only to sources that are positively controlled and deployed from manned aircraft that do not operate at high altitudes (*e.g.,* rotary-wing aircraft). Mitigation does not apply to active sonar sources deployed from unmanned aircraft or aircraft operating at high altitudes (*e.g.,* maritime patrol aircraft).

(A) *Number of Lookouts and observation platform for hull-mounted sources.* For hull-mounted sources, the Navy must have one Lookout for platforms with space or manning restrictions while underway (at the forward part of a small boat or ship) and platforms using active sonar while moored or at anchor; and two Lookouts for platforms without space or manning restrictions while underway (at the forward part of the ship).

(B) *Number of Lookouts and observation platform for sources not hull-mounted.* For sources that are not hull-mounted, the Navy must have one Lookout on the ship or aircraft conducting the activity.

(C) *Prior to activity.* Prior to the initial start of the activity (*e.g.,* when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel must relocate or delay the start of active sonar transmission until the mitigation zone is clear of floating vegetation or until the conditions in paragraph (a)(1)(ii)(F) of this section are met for marine mammals.

(D) *During the activity for hull-mounted mid-frequency active sonar.* During the activity, for hull-mounted mid-frequency active sonar, Navy personnel must observe the following mitigation zones for marine mammals.

(*1*) *Powerdowns for marine mammals.* Navy personnel must power down active sonar transmission by 6 dB if a marine mammal is observed within 1,000 yd (914.4 m) of the sonar source; Navy personnel must power down active sonar transmission an additional 4 dB (10 dB total) if a marine mammal is observed within 500 yd (457.2 m) of the sonar source.

(*2*) *Shutdowns for marine mammals.* Navy personnel must cease transmission if a marine mammal is observed within 200 yd (182.9 m) of the sonar source.

(E) *During the activity, for mid-frequency active sonar sources that are not hull-mounted, and high-frequency active sonar.* During the activity, for mid-frequency active sonar sources that are not hull-mounted and high-frequency active sonar, Navy personnel must observe the mitigation zone for marine mammals. Navy personnel must cease transmission if a marine mammal is observed within 200 yd (182.9 m) of the sonar source.

(F) *Commencement/recommencement conditions after a marine mammal sighting before or during the activity.* Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing or powering up active sonar transmission) until one of the following conditions has been met:

(*1*) *Observed exiting.* The animal is observed exiting the mitigation zone;

(*2*) *Thought to have exited.* The animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the sonar source;

(*3*) *Clear from additional sightings.* The mitigation zone has been clear from any additional sightings for 10 minutes (min) for aircraft-deployed sonar sources or 30 minutes for vessel-deployed sonar sources;

(*4*) *Sonar source transit.* For mobile activities, the active sonar source has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting; or

(*5*) *Bow-riding dolphins.* For activities using hull-mounted sonar, the Lookout concludes that dolphins are deliberately closing in on the ship to ride the ship's bow wave, and are therefore out of the main transmission axis of the sonar (and there are no other marine mammal sightings within the mitigation zone).

(iii) *Weapons firing noise.* Weapons firing noise associated with large-caliber gunnery activities.

(A) *Number of Lookouts and observation platform.* One Lookout must be positioned on the ship conducting the firing. Depending on the activity, the Lookout could be the same as the one provided for under ''Explosive large-caliber projectiles'' or under ''Small-, medium-, and large-caliber non-explosive practice munitions'' in paragraphs (a)(1)(iv)(A) and (a)(1)(viii)(A) of this section.

(B) *Mitigation zone.* Thirty degrees on either side of the firing line out to 70 yd (64 m) from the muzzle of the weapon being fired.

(C) *Prior to activity.* Prior to the initial start of the activity, Navy personnel must observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel must relocate or delay the start of weapons firing until the mitigation zone is clear of floating vegetation or until the conditions in paragraph (a)(1)(iii)(E) of this section are met for marine mammals.

(D) *During activity.* During the activity, Navy personnel must observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel must cease weapons firing.

(E) *Commencement/recommencement conditions after a marine mammal sighting before or during the activity.* Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing weapons firing) until one of the following conditions has been met:

(*1*) *Observed exiting.* The animal is observed exiting the mitigation zone;

(*2*) *Thought to have exited.* The animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the firing ship;

(*3*) *Clear from additional sightings.* The mitigation zone has been clear from any additional sightings for 30 min; or

(*4*) *Firing ship transit.* For mobile activities, the firing ship has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(iv) *Explosive large-caliber projectiles.* Gunnery activities using explosive large-caliber projectiles. Mitigation applies to activities using a surface target.

(A) *Number of Lookouts and observation platform.* One Lookout must be on the vessel or aircraft conducting the activity. Depending on the activity, the Lookout could be the same as the one described in ''Weapons firing noise'' in paragraph (a)(1)(iii)(A) of this section. If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.,* safety observers, evaluators) must support observing the mitigation zone for marine mammals while performing their regular duties.

(B) *Mitigation zones.* 1,000 yd (914.4 m) around the intended impact location.

(C) *Prior to activity.* Prior to the initial start of the activity (*e.g.,* when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel must relocate or delay the start of firing until the mitigation zone is clear of floating vegetation or until the conditions in paragraph (a)(1)(iv)(E) of this section are met for marine mammals.

(D) *During activity.* During the activity, Navy personnel must observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel must cease firing.

(E) *Commencement/recommencement conditions after a marine mammal sighting before or during the activity.* Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met:

(*1*) *Observed exiting.* The animal is observed exiting the mitigation zone;

(*2*) *Thought to have exited.* The animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location;

(*3*) *Clear of additional sightings.* The mitigation zone has been clear from any additional sightings for 30 minutes; or,

(*4*) *Impact location transit.* For activities using mobile targets, the intended impact location has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(F) *After activity.* After completion of the activity (*e.g.,* prior to maneuvering off station), Navy personnel must, when practical (*e.g.,* when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.,* providing range clearance), Navy personnel positioned on these Navy assets must assist in the visual observation of the area where detonations occurred.

(v) *Explosive bombs.*

(A) *Number of Lookouts and observation platform.* One Lookout must be positioned in an aircraft conducting the activity. If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.,* safety observers, evaluators) must support observing the mitigation zone for marine mammals while performing their regular duties.

(B) *Mitigation zone.* 2,500 yd (2,286 m) around the intended target.

(C) *Prior to activity.* Prior to the initial start of the activity (*e.g.,* when arriving on station), Navy personnel must observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel must relocate or delay the start of bomb deployment until the mitigation zone is clear of floating vegetation or until the conditions in paragraph (a)(1)(v)(E) of this section are met for marine mammals.

(D) *During activity.* During the activity (*e.g.,* during target approach), Navy personnel must observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel must cease bomb deployment.

(E) *Commencement/recommencement conditions after a marine mammal sighting before or during the activity.* Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing bomb deployment) until one of the following conditions has been met:

(*1*) *Observed exiting.* The animal is observed exiting the mitigation zone;

(*2*) *Thought to have exited.* The animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended target;

(*3*) *Clear from additional sightings.* The mitigation zone has been clear from any additional sightings for 10 min; or

(*4*) *Intended target transit.* For activities using mobile targets, the intended target has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(F) *After activity.* After completion of the activity (*e.g.,* prior to maneuvering off station), Navy personnel must, when practical (*e.g.,* when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.,* providing range clearance), Navy personnel positioned on these Navy assets must assist in the visual observation of the area where detonations occurred.

(vi) *Vessel movement.* The mitigation will not be applied if: the vessel's safety is threatened; the vessel is restricted in its ability to maneuver (*e.g.,* during launching and recovery of aircraft or landing craft, during towing activities, when mooring); the vessel is submerged or operated autonomously; or when impractical based on mission requirements (*e.g.,* during Vessel Visit, Board, Search, and Seizure activities as military personnel from ships or aircraft board suspect vessels).

(A) *Number of Lookouts and observation platform.* One or more Lookouts must be on the underway vessel. If additional watch personnel are positioned on the underway vessel, those personnel (*e.g.,* persons assisting with navigation or safety) must support observing for marine mammals while performing their regular duties.

(B) *Mitigation zone.*

(*1*) *Whales.* 500 yd (457.2 m) around the vessel for whales.

(*2*) *Marine mammals other than whales.* 200 yd (182.9 m) around the vessel for all marine mammals other than whales (except those intentionally swimming alongside or closing in to swim alongside vessels, such as bow-riding or wake-riding dolphins).

(C) *When underway.* Navy personnel will observe the direct path of the vessel and waters surrounding the vessel for marine mammals. If a marine mammal is observed in the direct path of the vessel, Navy personnel will maneuver the vessel as necessary to maintain the appropriate mitigation zone distance. If

a marine mammal is observed within waters surrounding the vessel, Navy personnel will maintain situational awareness of that animal's position. Based on the animal's course and speed relative to the vessel's path, Navy personnel will maneuver the vessel as necessary to ensure that the appropriate mitigation zone distance from the animal continues to be maintained.

(D) *Incident reporting procedures.* If a marine mammal vessel strike occurs, Navy personnel must follow the established incident reporting procedures.

(vii) *Towed in-water devices.* Mitigation applies to devices that are towed from a manned surface platform or manned aircraft, or when a manned support craft is already participating in an activity involving in-water devices being towed by unmanned platforms. The mitigation will not be applied if the safety of the towing platform or in-water device is threatened.

(A) *Number of Lookouts and observation platform.* One Lookout must be positioned on a manned towing platform or support craft.

(B) *Mitigation zone.* 250 yd (228.6 m) around the towed in-water device for marine mammals (except those intentionally swimming alongside or choosing to swim alongside towing vessels, such as bow-riding or wake-riding dolphins).

(C) *During activity.* During the activity (*i.e.,* when towing an in-water device), Navy personnel must observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel must maneuver to maintain distance.

(viii) *Small-, medium-, and large-caliber non-explosive practice munitions.* Gunnery activities using small-, medium-, and large-caliber non-explosive practice munitions. Mitigation applies to activities using a surface target.

(A) *Number of Lookouts and observation platform.* One Lookout must be positioned on the platform conducting the activity. Depending on the activity, the Lookout could be the same as the one described for ''Weapons firing noise'' in paragraph (a)(1)(iii)(A) of this section.

(B) *Mitigation zone.* 200 yd (182.9 m) around the intended impact location.

(C) *Prior to activity.* Prior to the initial start of the activity (*e.g.,* when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel must relocate or delay the start of firing until the mitigation zone is clear of floating vegetation or until the conditions in paragraph (a)(1)(viii)(E) of this section are met for marine mammals.

(D) *During activity.* During the activity, Navy personnel must observe the mitigation zone for marine mammals; if a marine mammal is observed, Navy personnel must cease firing.

(E) *Commencement/recommencement conditions after a marine mammal sighting before or during the activity.* Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met:

(*1*) *Observed exiting.* The animal is observed exiting the mitigation zone;

(*2*) *Thought to have exited.* The animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location;

(*3*) *Clear of additional sightings.* The mitigation zone has been clear from any additional sightings for 10 minutes for aircraft-based firing or 30 minutes for vessel-based firing; or

(*4*) *Impact location transit.* For activities using a mobile target, the intended impact location has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(ix) *Non-explosive bombs.* Non-explosive bombs.

(A) *Number of Lookouts and observation platform.* One Lookout must be positioned in an aircraft.

(B) *Mitigation zone.* 1,000 yd (914.4 m) around the intended target.

(C) *Prior to activity.* Prior to the initial start of the activity (*e.g.,* when arriving on station), Navy personnel must observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or a marine mammal is observed, Navy personnel must relocate or delay the start of bomb deployment until the mitigation zone is clear of floating vegetation or until the conditions in paragraph (a)(1)(ix)(E) of this section are met for marine mammals.

(D) *During activity.* During the activity (*e.g.,* during approach of the target), Navy personnel must observe the mitigation zone for marine mammals and, if a marine mammal is observed, Navy personnel must cease bomb deployment.

(E) *Commencement/recommencement conditions after a marine mammal sighting prior to or during the activity.* Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing bomb deployment) until one of the following conditions has been met:

(*1*) *Observed exiting.* The animal is observed exiting the mitigation zone;

(*2*) *Thought to have exited.* The animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended target;

(*3*) *Clear from additional sightings.* The mitigation zone has been clear from any additional sightings for 10 min; or

(*4*) *Intended target transit.* For activities using mobile targets, the intended target has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(2) *Mitigation areas.* In addition to procedural mitigation, Navy personnel must implement mitigation measures within mitigation areas to avoid or reduce potential impacts on marine mammals.

(i) *North Pacific Right Whale Mitigation Area.* Figure 1 shows the location of the mitigation area.

(A) *Surface ship hull-mounted MF1 mid-frequency active sonar.* From June 1–September 30 within the North Pacific Right Whale Mitigation Area, Navy personnel must not use surface ship hull-mounted MF1 mid-frequency active sonar during training.

(B) *National security exception.* Should national security require that the Navy cannot comply with the restrictions in paragraph (a)(2)(i)(A) of this section, Navy personnel must obtain permission from the designated Command, U.S. Third Fleet Command Authority, prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include information about the event in its annual activity reports to NMFS.

(ii) *Continental Shelf and Slope Mitigation Area.* Figure 1 shows the location of the mitigation area.

(A) *Explosives.* Navy personnel must not detonate explosives below 10,000 ft. altitude (including at the water surface) in the Continental Shelf and Slope Mitigation Area during training.

(B) *National security exception.* Should national security require that the Navy cannot comply with the restrictions in paragraph (a)(2)(ii)(A) of this section, Navy personnel must obtain permission from the designated Command, U.S. Third Fleet Command Authority, prior to commencement of

the activity. Navy personnel must provide NMFS with advance notification and include information about the event in its annual activity reports to NMFS.

(iii) *Pre-event Awareness Notifications in the Temporary Maritime Activities Area.* The Navy must issue pre-event awareness messages to alert vessels and aircraft participating in training activities within the TMAA to the possible presence of concentrations of large whales on the continental shelf and slope. Occurrences of large whales may be higher over the continental shelf and slope relative to other areas of the TMAA. Large whale species in the TMAA include, but are not limited to, fin whale, blue whale, humpback whale, gray whale, North Pacific right whale, sei whale, and sperm whale. To maintain safety of navigation and to avoid interactions with marine mammals, the Navy must instruct personnel to remain vigilant to the presence of large whales that may be vulnerable to vessel strikes or potential impacts from training activities. Additionally, Navy personnel must use the information from the awareness notification messages to assist their visual observation of applicable mitigation zones during training activities and to aid in the implementation of procedural mitigation.

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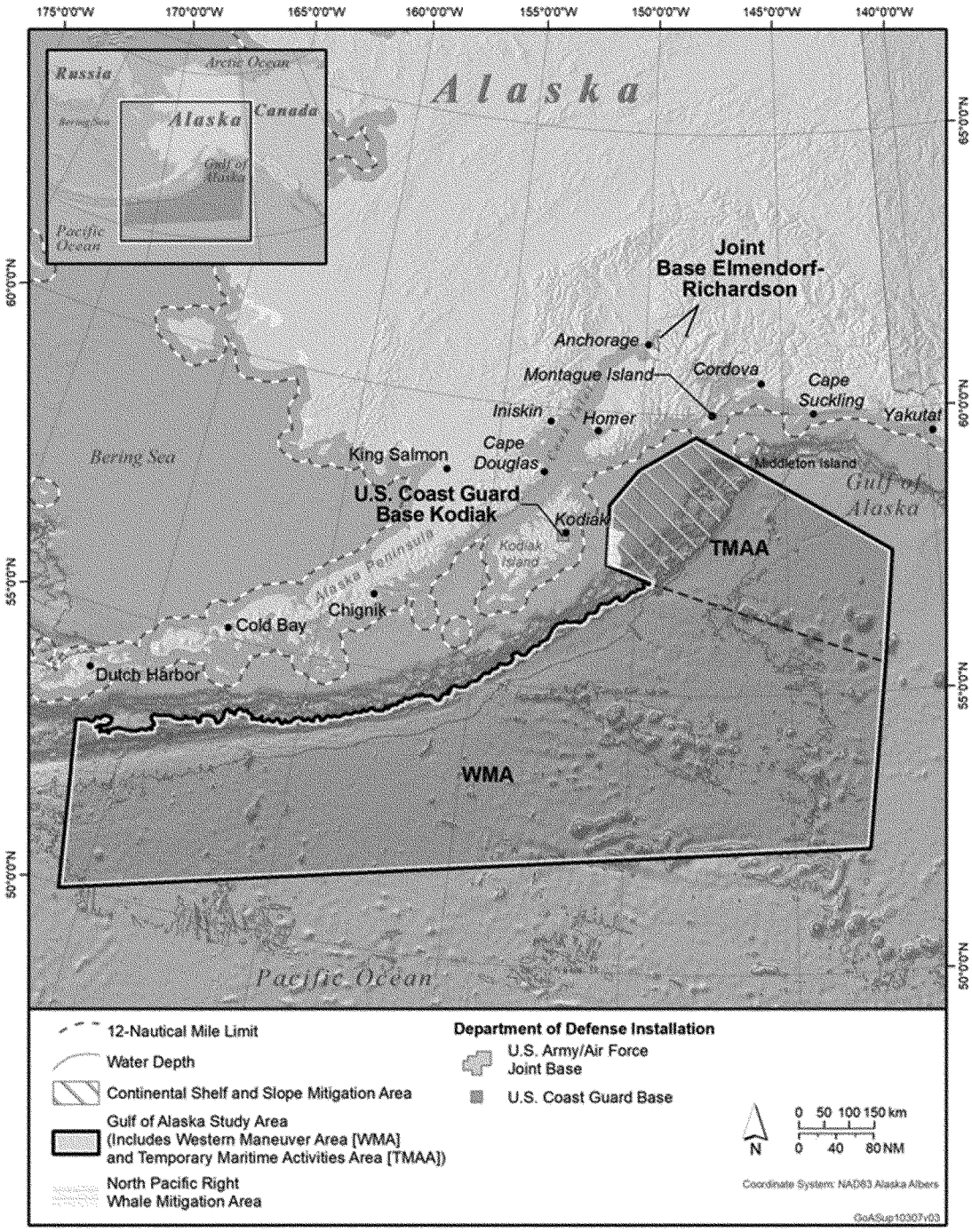

Figure 1-- Geographic Mitigation Areas for Marine Mammals in the GOA Study Area

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(b) [Reserved]

§ 218.155 Requirements for monitoring and reporting.

(a) *Unauthorized take.* Navy personnel must notify NMFS immediately (or as soon as operational security considerations allow) if the specified activity identified in § 218.150 is thought to have resulted in the mortality or serious injury of any marine mammals, or in any Level A harassment or Level B harassment of marine mammals not authorized under this subpart.

(b) *Monitoring and reporting under the LOA.* The Navy must conduct all monitoring and reporting required under the LOA, including abiding by the U.S. Navy's Marine Species Monitoring Program. Details on program goals, objectives, project selection process, and current projects are available at *www.navymarinespeciesmonitoring.us.*

(c) *Notification of injured, live stranded, or dead marine mammals.* Navy personnel must consult the Notification and Reporting Plan, which sets out notification, reporting, and

other requirements when dead, injured, or live stranded marine mammals are detected. The Notification and Reporting Plan is available at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-military-readiness-activities.*

(d) *Annual GOA Marine Species Monitoring Report.* The Navy must submit an annual report of the GOA Study Area monitoring, which will be included in a Pacific-wide monitoring report and include results specific to the GOA Study Area, describing the implementation and results from the previous calendar year. Data collection methods must be standardized across Pacific Range Complexes including the Mariana Islands Training and Testing (MITT), Hawaii-Southern California Training and Testing (HSTT), Northwest Training and Testing (NWTT), and Gulf of Alaska (GOA) Study Areas to allow for comparison among different geographic locations. The report must be submitted to the Director, Office of Protected Resources, NMFS, either within 3 months after the end of the calendar year, or within 3 months after the conclusion of the monitoring year, to be determined by the adaptive management process. NMFS will submit comments or questions on the report, if any, within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or 3 months after submittal if NMFS does not provide comments on the report. This report will describe progress of knowledge made with respect to intermediate scientific objectives within the GOA Study Area associated with the Integrated Comprehensive Monitoring Program (ICMP). Similar study questions must be treated together so that progress on each topic can be summarized across all Navy ranges. The report need not include analyses and content that does not provide direct assessment of cumulative progress on the monitoring plan study questions. This will continue to allow the Navy to provide a cohesive monitoring report covering multiple ranges (as per ICMP goals), rather than entirely separate reports for the GOA, NWTT, HSTT, and MITT Study Areas.

(e) *GOA Annual Training Report.* Each year in which training activities are conducted in the GOA Study Area, the Navy must submit one preliminary report (Quick Look Report) to NMFS detailing the status of applicable sound sources within 21 days after the completion of the training activities in the GOA Study Area. Each year in which activities are conducted, the Navy must also submit a detailed report (GOA Annual Training Report) to the Director, Office of Protected Resources, NMFS, within 3 months after completion of the training activities. NMFS must submit comments or questions on the report, if any, within one month of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or one month after submittal if NMFS does not provide comments on the report. The annual reports must contain information about the Major Training Exercise (MTE), including the information listed in paragraphs (e)(1) and (2) of this section. The annual report, which is only required during years in which activities are conducted, must also contain cumulative sonar and explosive use quantity from previous years' reports through the current year. Additionally, if there were any changes to the sound source allowance in the reporting year, or cumulatively, the report must include a discussion of why the change was made and include analysis to support how the change did or did not affect the analysis in the GOA SEIS/OEIS and MMPA final rule. The analysis in the detailed report must be based on the accumulation of data from the current year's report and data collected from previous annual reports. The final annual/close-out report at the conclusion of the authorization period (year seven) will also serve as the comprehensive close-out report and include both the final year annual use compared to annual authorization as well as a cumulative 7-year annual use compared to 7-year authorization. This report must also note any years in which training did not occur. NMFS must submit comments on the draft close-out report, if any, within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or 3 months after the submittal if NMFS does not provide comments. Information included in the annual reports may be used to inform future adaptive management of activities within the GOA Study Area. In addition to the information discussed above, the GOA Annual Training Report must include the following information.

(1) *MFAS/HFAS.* The Navy must submit the following information for the MTE conducted in the GOA 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 Lookouts.*

(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 information for each sighting in each exercise where mitigation was implemented:*

(A) *Date/Time/Location of sighting.*

(B) *Species (if not possible, indication of whale/dolphin/pinniped).*

(C) *Number of individuals.*

(D) *Initial Detection Sensor (e.g., sonar or Lookout).*

(E) *Indication of specific type of platform observation made from (including, for example, what type of surface vessel or testing platform).*

(F) *Length of time observers maintained visual contact with marine mammal.*

(G) *Sea state.*

(H) *Visibility.*

(I) *Sound source in use at the time of sighting.*

(J) *Indication of whether animal was less than 200 yd (182.9 m), 200 to 500 yd (182.9 to 457.2 m), 500 to 1,000 yd (457.2 to 914.4 m), 1,000 to 2,000 yd (914.4 to 1,828.8 m), or greater than 2,000 yd (1,828.8 m) from sonar source.*

(K) *Sonar mitigation implementation.* Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was.

(L) *Bearing, direction, and motion.* If source in use 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).

(M) *Observed behavior.* Lookouts 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.*) and if any calves present.

(iii) *Mitigation effectiveness evaluation.* An evaluation (based on data gathered during all of the MTEs) of the effectiveness of mitigation measures designed to minimize the received level to which marine mammals may be exposed. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

(2) *Summary of sources used.* (i) This section shall include the following information summarized from the authorized sound sources used in all training events:

(A) *Total hours.* Total annual hours or quantity (per the LOA) of each bin of sonar or other non-impulsive source; and

(B) *Number of explosives.* Total annual number of each type of explosive exercises and total annual expended/detonated rounds (bombs, large-caliber projectiles) for each explosive bin.

§ 218.156 Letters of Authorization.

(a) To incidentally take marine mammals pursuant to this subpart, the Navy must apply for and obtain an LOA in accordance with § 216.106 of this chapter.

(b) An LOA, unless suspended or revoked, may be effective for a period of time not to exceed the expiration date of this subpart.

(c) If an LOA expires prior to the expiration date of this subpart, the Navy may apply for and obtain a renewal of the LOA.

(d) In the event of projected changes to the activity or to mitigation, monitoring, or reporting (excluding changes made pursuant to the adaptive management provision of § 218.157(c)(1)) required by an LOA issued under this subpart, the Navy must apply for and obtain a modification of the LOA as described in § 218.157.

(e) Each LOA will set forth:

(1) Permissible methods of incidental taking;

(2) Geographic areas for incidental taking;

(3) Means of effecting the least practicable adverse impact (*i.e.,* mitigation) on the species and stocks of marine mammals and their habitat; and

(4) Requirements for monitoring and reporting.

(f) Issuance of the LOA will be based on a determination that the level of taking is consistent with the findings made for the total taking allowable under this subpart.

(g) Notice of issuance or denial of the LOA will be published in the **Federal Register** within 30 days of a determination.

§ 218.157 Renewals and modifications of Letters of Authorization.

(a) An LOA issued under §§ 216.106 of this chapter and 218.156 for the activity identified in § 218.150(c) may be renewed or modified upon request by the applicant, provided that:

(1) The planned specified activity and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for this subpart (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section); and

(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA were implemented.

(b) For LOA modification or renewal requests by the applicant that include changes to the activity or to the mitigation, monitoring, or reporting measures (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section) that do not change the findings made for this subpart or result in no more than a minor change in the total estimated number of takes (or distribution by species or stock or years), NMFS may publish a notice of planned LOA in the **Federal Register**, including the associated analysis of the change, and solicit public comment before issuing the LOA.

(c) An LOA issued under §§ 216.106 of this chapter and 218.156 may be modified by NMFS under the following circumstances:

(1) After consulting with the Navy regarding the practicability of the modifications, NMFS may modify (including adding or removing measures) the existing mitigation, monitoring, or reporting measures if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring.

(i) Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA include:

(A) Results from the Navy's monitoring from the previous year(s);

(B) Results from other marine mammal and/or sound research or studies; or

(C) Any information that reveals marine mammals may have been taken in a manner, extent, or number not authorized by this subpart or a subsequent LOA.

(ii) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS will publish a notice of planned LOA in the **Federal Register** and solicit public comment.

(2) If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in LOAs issued pursuant to §§ 216.106 of this chapter and 218.156, an LOA may be modified without prior notice or opportunity for public comment. Notice would be published in the **Federal Register** within 30 days of the action.

§ 218.158 [Reserved]

[FR Doc. 2022–16509 Filed 8–10–22; 8:45 am]

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Reader Aids

Federal Register

Vol. 87, No. 154

Thursday, August 11, 2022

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FEDERAL REGISTER PAGES AND DATE, AUGUST

46883–47092 1
47093–47330 2
47331–47620 3
47621–47920 4
47921–48078 5
48079–48430 8
48431–48600 9
48601–49504 10
49505–49766 11

CFR PARTS AFFECTED DURING AUGUST

At the end of each month the Office of the Federal Register publishes separately a List of CFR Sections Affected (LSA), which lists parts and sections affected by documents published since the revision date of each title.

3 CFR

Proclamations:
10428 48601
Executive Orders:
14079 49505
Administrative Orders:
Memorandums:
Memorandum of August 1, 2022 48599
Notices:
Notice of August 4, 2022 48077

6 CFR

126 48431

7 CFR

210 47331
215 47331
220 47331
226 47331
Proposed Rules:
51 48091
205 48562
3555 47646

9 CFR

Proposed Rules:
201 48091

10 CFR

Proposed Rules:
30 47947
70 47947
431 49537
626 47652

12 CFR

201 48441
204 48442
338 48079
343 48079

13 CFR

115 48080
120 46883

14 CFR

25 ..... 47332, 48084
39 ..... 47093, 47334, 47337, 49509, 49515
71 ..... 47097, 47098, 47342, 49519
89 49520
93 47921
97 ..... 48086, 48087
Proposed Rules:
25 46892
39 ..... 46903, 46906, 47141, 47144, 49554, 49556
71 ..... 47146, 47149, 47150
121 46892
1212 46908

16 CFR

Proposed Rules:
Ch. I 47947

17 CFR

Proposed Rules:
Ch. I 48092
39 49559

18 CFR

Proposed Rules:
35 48118

21 CFR

118 49521
573 47343

22 CFR

135 48444

23 CFR

655 47921

25 CFR

Proposed Rules:
502 48613
556 48613
558 48613
585 48615

26 CFR

1 47931

31 CFR

542 47932
560 47932
587 ..... 47344, 47347, 47348
589 47621
591 47932
594 47932

32 CFR

199 46884

33 CFR

3 48444
100 ..... 47348, 49522
165 ..... 46887, 47350, 47352, 47624, 47626, 47935, 47937, 47938, 48444, 49523
334 46888
Proposed Rules:
165 ..... 47381, 47659, 47661, 47949, 48125, 49568

34 CFR

Proposed Rules:
Ch. II 47152, 47159

36 CFR

2 47296

38 CFR

17 47099

Proposed Rules:

61 46909

39 CFR

Proposed Rules:

3050 48127

40 CFR

52 ....46890, 47101, 47354, 47630, 47632, 49524, 49526, 49528, 49530
60 48603
63 48603
180 47634
372 47102
721 47103
723 47103

Proposed Rules:

52 ....46916, 47663, 47666, 49570
180 47167
372 48128

42 CFR

410 48609
412 ....47038, 48780
413 ....47502, 48780
414 48609
482 48780
483 47502
485 48780
495 48780

Proposed Rules:

Ch. IV 46918
438 47824
440 47824
460 47824

43 CFR

49 47296
8360 47296

Proposed Rules:

8360 47669

44 CFR

206 47359

45 CFR

Proposed Rules:

80 47824
84 47824
86 47824
91 47824
92 47824
147 47824
155 47824
156 47824

47 CFR

64 47103

Proposed Rules:

51 47673
61 47673
69 47673

48 CFR

Ch. 1 ....49502, 49503
4 49502
13 49502
17 49502
23 49502
51 49502
52 49502
Ch. 28 47116

49 CFR

1249 47637

Proposed Rules:

40 47951
385 48141

50 CFR

27 47296
300 ....47939, 47944, 48447
622 48610
635 49532
648 ....47644, 48447, 48449
660 49534
679 ....48449, 48611

Proposed Rules:

218 49656
224 46921
648 ....47177, 47181, 48617, 49573

LIST OF PUBLIC LAWS

This is a continuing list of public bills from the current session of Congress which have become Federal laws. This list is also available online at *https://www.archives.gov/federal-register/laws*.

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H.R. 4346/P.L. 117–167
Making appropriations for Legislative Branch for the fiscal year ending September 30, 2022, and for other purposes. (Aug. 9, 2022; 136 Stat. 1366)

Last List August 10, 2022

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